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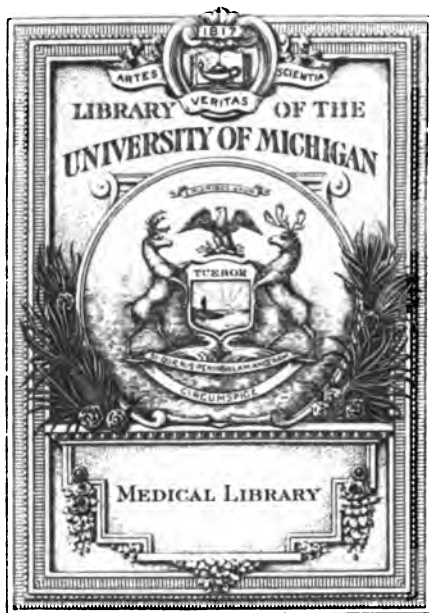
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THE LONDON MEDICAL GAZETTE,

BEING A
WEEKLY JOURNAL

OF
Medicine and the Collateral Sciences.

SATURDAY, APRIL 2, 1831.

OBSERVATIONS
ON
CALCULOUS DISEASES.

By B. C. BRODIE, F.R.S.

As delivered by him in his Surgical Lectures.

[The papers with the first of which we this week present our readers, will be found to form a continuation of Mr. Brodie's valuable observations on the Diseases of the Urethra, Bladder, and Prostate Gland, contained in our first volume. It was our intention to have completed the subject at an earlier period, but we have been prevented by unforeseen circumstances from doing so until now.—Ed. Gaz.]

THE urine in its natural state is composed of a number of ingredients, which are maintained in solution as long as they preserve the temperature of the body. Sometimes, however, it happens that one or more of these ingredients is deposited in a solid form, although the urine has undergone no alteration in its temperature, and even while it remains in the bladder, or in some other of the urinary passages. These deposits may be in the form of small particles, or sand, or in larger masses. We call these latter calculi. Whether there be merely sand, or whether there be actual calculi, the nature of the disease is essentially the same, and it is to these calculous disorders that I call your attention in this and the following lectures. The subject is one of the highest interest, on account of the number and variety of the phenomena which it embraces; on account of the pain, distress, and deep anxiety which the patient suffers;

and on account of the great relief which the art of surgery is capable of affording in the majority of these cases.

I.—Of Sand in the Urine.

The urine contains a large quantity of a peculiar acid, first accurately described by Scheele, who gave it the name of uric acid, but to which the name of lithic acid is more commonly applied by the chemists of this country. It was formerly supposed that the pure acid was held in solution by the urine. Dr. Prout, however, has shewn that the pure acid is almost insoluble, and that under ordinary circumstances, it exists only in the form of lithate of ammonia, which is a very soluble salt. It is this, and not the uncombined acid, which causes healthy urine to reddens litmus paper. In very cold weather the urine, as it cools, deposits the lithate of ammonia, blended with some other animal matter. It is the lithate of ammonia, also, which forms the principal part of the soft or uncrystallized sediment deposited in the vessel by the urine of persons who labour under dyspepsia, and some other bodily ailments.

Now if you add to healthy urine some kind of acid for which ammonia has a stronger affinity than it has for the lithic acid—the juice of a lemon, for instance—the lithate of ammonia is no longer precipitated; and in its place you find a number of small red crystals, resembling particles of cayenne pepper, at the bottom of the vessel. These are composed of the pure lithic acid. The lemon-juice unites with the ammonia, and the lithic acid, being nearly insoluble, is precipitated. This, which happens out of the body, may

B.

happen in the body also. The presence of another acid in the urine causes the lithic acid, even in the bladder, to be precipitated in the form of a red sand. Dr. Prout says that it is usually the muriatic acid which produces this effect. However that may be, we find that those who are liable to the formation of acid in the stomach are especially liable to the deposition of the red sand. If the digestion be weak, and the food in consequence remains in the stomach long enough to become aced, the red sand is generated. If the food be indigestible, or if it be taken in too large quantity, the same effect may be produced even in the most healthy person. The free use of fermented liquors, and especially of those which contain acid already, or sugar, which may become acid in the stomach, such as punch and champagne, leads to the same result. Persons who lead a sedentary life, and who never take exercise, so as to produce perspiration, are also especially liable to the formation of red sand. Dr. Philip has made some interesting observations relating to this last point, which are of much practical importance. You will find them recorded in a paper published by Dr. Philip, in one of the volumes of the Medical Transactions of the College of Physicians. It seems as if, during perspiration, something was carried off from the blood in the cutaneous vessels which would otherwise cause the urine to be loaded with acid. Sir Gilbert Blane long ago observed that a disposition to calculous disorders is frequently combined with eruptions on the skin (psoriasis), and Dr. Philip's observations will explain the reason of this association.

When the urine contains a superabundant acid, which precipitates the red (or lithic acid) sand, it usually is bright and transparent to the eye, and of a copper colour, resembling in appearance Madeira wine. In general the patient is troubled more or less with dyspeptic symptoms, and frequently he is liable to gout. Many circumstances demonstrate a close connexion between this last disease and the formation of red sand in the urine. The same peculiar constitution, the same luxurious diet, the same inactive life which makes you subject to the one makes you also subject to the other. The red sand is composed of crystals of lithic acid in its pure state, while the chalk stones which are

formed in the bursæ and cellular membrane of gouty patients, are composed of the same acid, in combination with soda.

In what are called the better classes of society you find the deposition of red sand to exist chiefly in adult persons, but in the lower classes you find it chiefly among children. These circumstances are easily explained. Adult persons in affluent circumstances, for the most part, lead a more luxurious and indolent life than their children; while among those of lower condition, the diet of the children is frequently unwholesome, and comparatively little attention is paid to the various derangements of the digestive organs, to which they are liable.

In many instances the red sand is voided without any particular symptoms to indicate its formation, and the patient discovers the disease only by seeing it in the urine; but at other times he complains of uneasy sensations in the loins, of pain in the groins, and in the course of the urethra; and sometimes a small quantity of blood is discharged from the urethra, in consequence of its being abraded in some one part by the sharp hard angles of the crystals. Where the urethra is irritable and liable to spasmodic affections, the contact of the red sand induces spasm in it, occasioning a diminution of the stream, and even difficulty of voiding the urine. In such cases you in vain endeavour to cure the stricture merely by the use of bougies; but if you employ at the same time such remedies as tend to prevent the formation of red sand, you cure the stricture easily.

It is of great consequence that you should stop the formation of red sand, both because it is in itself a considerable evil, and because, if neglected, it may lead to the formation of a larger concretion in the bladder. You may almost invariably prevent the formation of red sand by conveying alkaline remedies into the stomach—as potash, soda, lime-water, ammonia, magnesia. Sometimes one, sometimes another, may be preferable, according to circumstances; and sometimes it may be advisable to give them in combination with each other. If the lithic acid is deposited in small quantity, and the bowels are too much relaxed, (which, however, rarely happens in these cases) lime-water may be useful. In persons of weak bodily powers, who may be supposed to require cordial and stimulating remedies, you may ex-

hibit ammonia. Dr. Prout recommends the carbonate of potash in preference to the carbonate of soda, for the following reason—that the soda, under certain circumstances, will enter into combination with the lithic acid, forming an insoluble salt, as bad as the lithic acid itself; whereas the lithate of potash is perfectly soluble; and if this combination takes place, it will pass off dissolved in the urine. On the whole, magnesia, as recommended by Professor Brande, is preferable to the rest. Being in itself insoluble, it cannot enter the circulation except it has first become combined with acid in the stomach or intestine; and hence it does not pass out of the system so soon as the alkalis. The dose of all these remedies must vary according to circumstances. You may give of the pure magnesia from ten grains to two scruples daily, and of the others in proportion.

I have mentioned the *carbonates* of potash, soda, and ammonia, as these agree better with the stomach, and therefore are more proper to be employed than the pure alkalis. The carbonic acid does not interfere with their medicinal effects. There is a remarkable difference in the effects produced on these disorders by the salts which contain a mineral and those which contain a vegetable acid. The sulphates, muriates, nitrates, are of no avail; but the tartrate of potash, the tartarized soda, the common saline draught, composed of citric acid and potash, all produce the same effect as the pure alkalis, or as the alkalis combined with carbonic acid. This remarkable circumstance was first noticed by Sir Gilbert Blane. Sir Gilbert has also recommended a very efficient method of exhibiting the carbonate of potash in these cases, by giving it in a saline draught with an excess of alkali.

I have said that different doses of the alkaline remedies will be required in different instances. Indeed a good deal of care is generally necessary to adjust the dose to the peculiar circumstances of the individual case. If you give too little of the alkali, the result is not obtained, and the lithic acid is still deposited, although in smaller quantity. If you give too much, you not only prevent the formation of the red sand, but you render the urine alkaliue, and a white sand (the triple phosphate of ammonia and magnesia) is deposited in its place. If mag-

nesia is taken in a larger quantity than is necessary to neutralize the acid generated in the stomach, the patient is liable to the formation of magnesian calculi in the intestines. These last are composed of the magnesia mechanically blended with the feces and intestinal mucus. They are not uncommon in these times, when so many individuals are in the habit of taking magnesia in a careless and profuse manner. I have in several instances known a person to suffer a good deal of distress from such a calculus being lodged in the rectum. But cases have occurred in which the accumulation of magnesia in the intestine has taken place to a very great extent. Mr. Wilson examined the body of a patient in whom, if I recollect rightly, many pounds of magnesia were found collected in the colon above a contracted part of the rectum.

In the exhibition of alkaline remedies, then, you must make each case the subject of a distinct experiment; and that the experiment may be more properly conducted, you must, if possible, make the patient enter into your views, that he may assist your practice by his own observations. You should be provided with paper, coloured blue by an infusion of litmus; and also with the same paper, slightly reddened by immersion in a very weak acid. Healthy urine ought to turn the blue litmus paper a little red, and you ought not to give alkaline remedies in such a dose as to destroy this property altogether; still less ought you to render the urine alkaline. If the urine turns the red paper blue, the patient is in danger of suffering from a deposition of the phosphates, and the alkalis must be given in smaller quantity.

It is to be further observed, that the time when the urine is most acid, and when the alkalis are most required, is after the principal meal, that is, after dinner. The alkalis are not, indeed, to be given immediately after dinner, for then they are likely to interfere with digestion; but three or four hours afterwards. In some cases it is better for the patient to defer taking his medicine until he wakes accidentally in the middle of the night. In many instances a single dose of magnesia daily, and that at bed-time, is all that is required; while in others it should be exhibited in the middle of the day also.

But it may truly be observed that this

is not striking at the root of the disorder. Alkalies prevent the formation of red sand while they are being taken, but they do not prevent it being formed again as soon as they are left off. The patient cannot well take them for ever, and something further, therefore, is required. When he suffers from costiveness, purgatives must be exhibited; and even in those cases, in which the bowels are not particularly torpid, purgatives are useful. The mercurial purgatives are, on the whole, to be preferred. A blue pill may be administered every night, with a draught of infusion of senna and tartrate of potash every fourth morning; or a calomel pill may be given once or twice in a week, at bed-time, and the senna draught on the following morning. When the disease is connected with gout, the patient may take the colchicum with great advantage: in the first instance, twenty drops of the vinum colchici may be administered twice or three times daily; afterwards, a draught of infusion of senna, with a saline purgative, and forty or forty-five drops of the vinum colchici, may be given occasionally in the morning. But more, after all, is to be effected by attention to diet and mode of living, than by medicine. Is the patient a great eater, pampering his appetite by a variety of dishes, and thus exciting himself to swallow more food than his stomach can readily digest?—let him make his dinner on a single dish, and eat of that in moderate quantity. Let him also incline to a vegetable rather than an animal diet; avoiding, however, undressed vegetables, and especially those which are acid or acedent—as salad, oranges, apples, &c. Does he commit excesses in drinking?—let him leave off fermented liquors altogether, or take them only in small quantity; and in particular let him avoid such fermented liquors as, from the sugar which remains unfermented in them, are liable to become acid in the stomach, or which are acid already. The French white wines are injurious in these cases, especially champagne; but none of them are worse than our own English liquor called punch.

If your patient has been in the habit of dining late in the evening, going to bed soon after a hearty meal, he should alter his habits in this respect; dining sufficiently early to allow of his

food being digested before he retires to rest. If he has led a sedentary life, he should cease to do so; walking or riding daily, so as to induce perspiration. A person who takes a good deal of exercise may take liberties as to diet which he could not otherwise take with impunity. For example: a gentleman of my acquaintance was accustomed to dine daily in convivial society, eating and drinking heartily, and not stinting himself in the use of champagne. But he was of active habits. He rose early in the morning, walked for an hour or two before breakfast, and came home to breakfast perspiring profusely. If by chance, in his morning's walk, he met any one of his friends, his remark was, that he was doing this to distil off his champagne. By-and-by some circumstances occurred which altered his mode of life in this respect; and not long afterwards he consulted me concerning two symptoms which gave him some trouble and anxiety: the one, a quantity of red sand in the urine, and the other a scaly eruption (*psoriasis*) of the skin. He had continued to eat and drink as usual, but he had ceased to rise early and to take his long walk, which brought him home perspiring to breakfast; and this alteration in his habits was soon followed by the appearance of the red sand and the eruption.

A copious perspiration may be produced in other ways, as well as by means of exercise. The most certain and effectual method is the use of the sulphur, fumigating, or hot air bath. The hot air bath is certainly of great advantage to those persons who, having led an inactive life, are subject to dyspepsia, and those twinges in the limbs, especially in the feet, which sooner or later are followed by a regular attack of gout; and I believe that it may also be employed beneficially in those cases in which the patient suffers from a too large proportion of lithic acid in the urine. It is worthy of observation that the perspiration produced by the hot air bath is highly acid, reddening the blue litmus paper even more readily than it is reddened by the urine.

The red or lithic acid sand is not the only sand deposited by the urine. In some instances the urine deposits distinct white particles, which are minute crystals of a triple salt composed of the phosphate of ammonia and magnesia.

Here the urine is not acid, but of an alkaline quality; it turns the reddened litmus paper blue, and if very alkaline, it turns the yellow turmeric paper brown. According to Dr. Prout, the formation of the white sand takes place in the following manner:—The urine, under ordinary circumstances, contains the phosphate of magnesia, which is held in solution, being a highly soluble salt. But in some cases of disease the urea of the urine becomes decomposed in the kidneys, and ammonia is evolved, which combines with the phosphate of magnesia, so as to make a triple salt. But the triple salt is insoluble, and therefore it is precipitated in the form of a white sand. Dr. Prout observes also, that the same state of system which leads to the decomposition of urea and the evolution of ammonia, leads also to a more abundant formation of the phosphate of magnesia, and hence arises the immense deposition of white sand, which occurs in some cases. Indeed this is sometimes so great that the quantity of phosphate of magnesia which healthy urine contains will by no means account for it. I performed the operation of lithotomy on a boy, whose urine, after the operation, deposited such a quantity of the triple phosphate that his perineum, the inside of his thighs, and the bed-clothes, had the appearance of being dusted over with a white powder, and if the white powder was wiped off, the appearance was renewed in the course of a few hours.

The existence of the white sand in the urine is no new discovery: it was described by writers, under various appellations, even before Dr. Wollaston ascertained its chemical composition. It was not, however, until the investigation was taken up by Dr. Prout that any just notions were formed as to the peculiar circumstances under which this peculiar salt is generated.

The state of the system which leads to the production of alkaline urine, and of white sand, is very different from that which is attended with a too acid condition of the urine and the formation of red sand. The latter occurs in individuals who are over-fed, who are over-stimulated, and whose vital powers are not expended by exercise—where there is what Dr. Cullen would have called a sthenic diathesis. But the alkaline urine indicates an asthenic state

of the system; it is the result of debility. In a person who is exhausted by too severe mental or bodily exertions, or who has long been worn by mental anxiety, the urine becomes alkaline. A gentleman who was at that time attending these lectures, called on me, not long since, to consult me concerning his general health. After a careful inquiry into the circumstances of his case, I was unable to discover any marks of local disease. It was not one function in particular, but all his functions were deranged. He had been in the habit of sitting up to write out his notes until two in the morning; he had risen from his bed at six; he had worked all day, both with his hands and with his head;—in short, he was suffering from excessive labour of both body and mind. I said to him, "Your case is not one which medicine alone will cure; you must study less, and sleep more. Your system is in that state which will lead to your having alkaline urine, if you have it not already." He went into the adjoining room to make water, and immediately on it being voided I tested the urine, and found it to be alkaline, as I had anticipated. I mention this case that the important fact which it illustrates may be well impressed on your minds; but cases corresponding to it are not uncommon.

In many instances a course of mercury renders the urine alkaline. In some individuals even a single dose of calomel will produce the same effect. Mercury is what is commonly called a *lowering* medicine, and this seems to explain the principle on which it operates. In a person who is already weak, the further degree of exhaustion which is the consequence of the exhibition of an active purgative, will be sufficient to make the urine alkaline. The too abundant exhibition of alkaline remedies will, as indeed might be expected, lead to the same result. Injuries of the spine, affecting the spinal marrow, will also be followed by the secretion of alkaline urine. I observed this fact first as long ago as the year 1807, and have taught it in my surgical lectures from the time that I began to deliver them in the year 1808. Since then the observation has been confirmed, not only by my own experience but by that of many other individuals. It is remarkable that this effect is equally

produced whatever is the part of the spine that is injured; whether it be the loins, or the back, or the neck; whether the bladder be or be not paralytic. It continues even after the patient has recovered of all his other urgent symptoms. I was consulted by a gentleman who had met with a severe injury of the spine more than a year before. Immediately after the accident had occurred his limbs had become paralytic, but he began to regain the use of them in the course of a few weeks, and when he applied to me he could walk and ride like other persons, but his urine was still alkaline. The same thing occurs where there is disease of the medulla spinalis independent of mechanical injury. I have lately attended a gentleman who laboured (as the post-mortem examination proved) under an affection of the lower half of the medulla. It had lost its natural structure, and was in that state to which Rostan has applied the name of *ramollissement*. There was some reason to believe that in this case the disease had been induced by excessive venery—that it was a true *tabes dorsalis*. One symptom was a half-paralytic state of the muscles of the lower limbs, so that the patient could scarcely walk even with the assistance of crutches; another was the highly alkaline condition of the urine. In this case, in the commencement of the paraplegia the urine was unusually acid, and it was only as the paraplegic symptoms advanced that it became alkaline. This confirms a remark which Dr. Prout has made, that alkaline urine is frequently preceded by a too abundant formation of lithic acid. In females who labour under what may be regarded as aggravated hysterical affections, the urine is frequently alkaline, and deposits the triple phosphate in abundance. The same persons are also liable to have the red or lithic acid sand in the urine; and not unfrequently the two kinds of sand alternate with each other. It is astonishing what a quantity, sometimes of lithic acid and sometimes of triple phosphate sand, passes off with the urine in some of these cases.

Those persons who habitually secrete alkaline urine are generally pale and sallow; incapable of much bodily and mental exertion; complaining of lassitude and weariness; and when this state of things has existed for some

time their bowels become irregular, being sometimes too much confined, at other times too much relaxed; and they exhibit other marks of debility. Such is the description of the symptoms connected with the secretion of alkaline urine given by Dr. Prout; and your future experience will enable you to bear testimony as to the general correctness of this statement. There are, however, cases to which it does not apply, and I have at this time under my care a gentleman whose urine is alkaline, and has been so for a considerable time, although his general health is good, and he has no other ailment, with the exception of a costive state of the bowels. The urine, instead of the transparent coppery appearance which it possesses, when it is too acid, is voided slightly opaque; of a pale colour, like whey; and being secreted in too large quantity and much diluted, it is of a low specific gravity. The odour is unnatural and disagreeable; sometimes ammoniacal. When allowed to stand even for a short time, the triple phosphate is deposited in the form of a white sand, at the same time that a pellicle is formed on its surface, which shews the prismatic colours, and which Mr. Brande has ascertained to be composed of the triple phosphate also. If allowed to stand for a longer time, the urine becomes putrid, and smells of ammonia.

Besides the triple phosphate of ammonia and magnesia, another salt into the composition of which the phosphoric acid enters, is frequently to be detected in the urine, namely, the phosphate of lime. A small quantity of this salt seems to be occasionally generated by a diseased kidney; but by far the greater proportion of it is derived from another source.

Dr. Austin, physician to St. Bartholomew's Hospital, in the year 1791, published a Treatise on Stone in the Urinary Bladder, in which he states that "the main result of his inquiries has been, that the stone is formed generally in very small parts, and often in no degree whatever, from the urine as secreted in the kidneys, but chiefly from mucus produced from the sides of the different cavities through which the urine passes." The late Mr. Chevalier, in the second volume of the *Medico-Chirurgical Transactions*, published some observations which were intended

to confirm Dr. Austin's hypothesis. These notions, however, attracted but little attention, even when first promulgated; nor is this to be at all wondered at, when we consider how much they are at variance with a multitude of well-known facts. Nevertheless, they are not absolutely without foundation. Dr. Austin was in an error, inasmuch as he mistook the exception to the general rule, for the rule itself; but no further. It is true that calculous matter in by far the greatest number of instances is a deposit from the urine, but under certain circumstances it is generated by the mucous membrane of the bladder. How this happens was first distinctly explained by Dr. Prout.

I have described to you, in a former lecture, the phenomena which belong to chronic inflammation of the mucous membrane of the bladder. One of its effects is the secretion of aropy adhesive mucus in a most abundant quantity. This mucus is highly alkaline, containing the carbonate of soda, which is a soluble salt; containing also the phosphate of lime, which is insoluble. The latter is frequently seen presenting the appearance of white streaks in the mucus. In some cases it is produced in still larger quantity, and it comes away, not in the form of white sand, but in that of small white irregularly-shaped masses, resembling fragments of mortar.

Now this formation of the phosphate of lime may take place where there is no triple phosphate in the urine; and sometimes, on testing the contents of the vessel, you will find that the urine itself is acid, although the mucus is alkaline. In order that you should succeed in this experiment, you must examine the urine and the mucus, just as the latter has been deposited. If you wait some time longer, putrefaction begins; ammonia is evolved, and the whole is rendered alkaline. The triple phosphate of ammonia and magnesia, and the phosphate of lime, have different origins, and either of them may exist in the urine independent of the other. But it continually happens that you find these two varieties of the phosphates co-existent in the same urine, and this combination is probably produced in one of the following ways:—

1. The primary disease may be a secretion of alkaline urine in the kidneys, and consequent production of the tri-

ple phosphate. The alkaline urine is an irritating application to the membranous surfaces with which it comes in contact. If it continues for a certain time, it induces a chronic inflammation of the mucous membrane of the kidneys and ureters, extending to that of the bladder, and inducing the formation of adhesive mucus, containing the phosphate of lime.

2. In other cases, the chronic inflammation of the mucous membrane of the bladder is the primary affection. This cannot exist long without affecting the constitution. It excites, not inflammatory fever, but a low febrile disturbance of the system, attended with much general debility. Such a state of system is very liable to occasion a secretion of alkaline urine in the kidneys:—

And, in one or other of these ways, it happens that the formation of the triple phosphate, and that of the phosphate of lime, are associated with each other; sometimes one, and sometimes the other, being the original malady.

The treatment of patients in whom the urine deposits the triple phosphate, or white sand, is to be conducted on principles very different from those by which you are regulated where you are required to prevent the deposition of the lithic acid.

The formation of the triple phosphate indicates great general debility. Whatever tends to lower the patient, aggravates the malady. Purgatives are to be exhibited with the greatest caution, and mercurial purgatives especially are to be carefully avoided. All alkaline remedies, soda, potash, magnesia, lime water, ammonia, are to be avoided also. I have frequently known them to be exhibited by those who did not distinguish the different varieties of calculous disorders from each other, and who had a vague notion of alkalies being good for the gravel; and I have seen them productive of the very worst effects, in many instances. I know it has been said that these remedies may be useful where the digestion is bad, even though the urine is alkaline; and I have myself seen every now and then a case of this description, in which small doses of soda were exhibited with advantage;—but I am sure that such cases are to be regarded, not as constituting the foundation of a general rule, but as exceptions to it. Be as-

sured, that the rule is, that alkalies are to be avoided. On the same principle on which you avoid alkalies, you are to exhibit acids. This mode of treatment was first suggested by Dr. Wollaston. Mr. Brande recommended the use of vegetable acids in preference to the mineral. At any rate, these are very fit to be employed where they do not disagree with the stomach so as to interfere with digestion. The patient may drink lemonade, or eat oranges or lemons, in such quantity as he finds necessary. If the vegetable acids, however, as frequently happens, do not agree with the stomach, the mineral acids may be given instead: from five to ten minims of muriatic acid three times daily, or from fifteen to forty minims of the diluted nitric acid, may be administered as often. You must regulate the dose of the acid by frequent examinations of the urine, testing it with litmus paper, which has been previously reddened by immersion in a weak acid, or by yellow turmeric paper. Tonics, and whatever tends to increase the bodily powers, are likely to be useful in these cases, as bark, sulphate of quinine, bitter infusions, sulphate of iron, the tincture of the muriate of iron, &c. The diet should be plain, but rather generous, and, at the same time, such as is easy of digestion, consisting of a due mixture of animal and vegetable food. Fermented liquors may be taken in moderate quantity, and, for the most part, the acid wines, as hock and Moselle, will be preferable to others. Dr. Prout has pointed out the good effects of opium, henbane, and other narcotics. If opium does not interfere with the digestive functions, you may give it in doses of from half a grain to a grain twice or three times daily. In general, in these cases opium does agree, and the tongue remains moist, and the digestion unimpaired under its use. In addition to these remedies, the patient is to avoid all severe exertion of body or mind; and should be kept as free as possible from all causes of anxiety, his mind being agreeably occupied by some light employments which do not require any considerable exercise of attention. Courses of mercury, and even a single dose of mercury, are likely to be injurious, as is the case also with antimony, and other diaphoretics.

Where the phosphate of lime is deposited in consequence of aropy mu-

cous secretion from the mucous membrane of the bladder, you are in the first instance to endeavour to remove the cause on which the secretion depends, namely, the chronic inflammation of the membrane. I must refer you here to the observations, which I made in one of my former lectures, briefly recapitulating, however, what I then said on the subject. Bleeding not only does not tend to diminish the inflammation, but is actually injurious. The first thing to be done is to discover the cause of the inflammation, and to remove it, if possible. It may depend on stricture of the urethra, and may be relieved immediately on the stricture being dilated with a bougie. It may depend on a partial retention of urine in the bladder, in consequence of an enlargement of the prostate gland. The bladder must then be emptied artificially by the introduction of a gum catheter, once, or twice, or three times daily. It is seldom advisable in these cases to keep the catheter constantly retained in the bladder, for then the catheter becomes in itself a source of irritation, keeping up the inflammation of the bladder, and adding to the cause, on which the deposition of the phosphate of lime depends. Perfect rest in the horizontal posture, opium, suppositories, and narcotics by the mouth, will be useful also. The exhibition of the decoction of the root of the *pareira brava* is, in many instances, productive of excellent effects. It has a remarkable influence over the secretion of the ropy alkaline mucus. Injections into the bladder of warm water, and even of a weak solution of nitric acid, are sometimes useful; but of the cases in which these last remedies are to be recommended, I shall speak to you more particularly in a future lecture.

Where these two diseases, namely, the secretion of the triple phosphate of ammonia and magnesia by the kidneys, and of the phosphate of lime by the bladder, are co-existent (and this is a very common occurrence), you must combine the two modes of practice which I have just described with each other. They are quite compatible, and in fact there are very few of the remedies which are useful in the one case which are not also useful in the other.

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ABSTRACT

OF A

LECTURE ON CHOLERA;

Recently delivered in the Ecole de Médecine,

BY M. ANDRAL.

Symptoms and Seat of the Disease—the latter a Mystery to the Morbid Anatomist—M. Andral's Treatment—Remark on the English practice of gorging with Calomel.

CHOLERA, or cholera-morbus, is an acute disease characterised by repeated vomitings, numerous alvine dejections, smallness of the pulse, and excessive coldness of the extremities; but what renders it most remarkable is the rapidity of its progress and the promptitude of its termination. A question, however, naturally arises, whether it is, as its name indicates, a disease of the biliary apparatus? Is it really to be considered as an inflammation of the gastro-intestinal cavity? There cannot be a doubt but that the symptoms which shew the presence of the disease originate in the digestive tube; but since, on opening the bodies of those who sink under it, there can be discovered no notable alteration either in the intestinal canal or its appendages, and the nervous system evidently being mainly engaged in the phenomena, it would be more consistent and proper to class cholera with those diseases which go by the name of *enteralgic*.

Those who have most minutely examined into the pathology of the complaint, have, in nine cases out of ten, invariably been unable to discover any appreciable internal lesion. Sometimes, indeed, a redness has been observed—a partial injection of the mucous coat of the tube—but bearing no appreciable relation to the severity of the symptoms. With all the copiousness of the bilious dejections it was impossible to find any morbid alteration in the liver or gall-bladder. In this, then, as well as in numerous other instances, we must acknowledge the insufficiency of morbid anatomy, and confess the insurmountable difficulty of the problem—being given the anatomical lesions in any case, to determine the disease.

Cholera may be either sporadic, endemic, or epidemic. Epidemic cholera has been frequently noticed; sometimes limited in its extent, but frequently afflicting an immense tract of country.

Thus it prevailed in London, in 1669 and 1676; in Switzerland, in 1696; in Germany, in 1717; in Paris, in 1760; and but a very few years ago, two French regiments, garrisoned at Cadix, were attacked with an epidemic cholera which raged among them during the months of August and July. In the year 1800 no part of Europe was free from its ravages; and the historians of the period bestowed on it the homely, but expressive title of *trousse-galant*. Between the years 1817 and 1825 it traversed all Asia, at which latter period it once more passed the barriers of Europe, and is at this moment found raging in Russia. Upwards of six millions of human beings are supposed to have fallen its victims in Asia, and it is accordingly called, in that quarter of the world, the *elowa*, the *mordekin*; terms which imply the *hurricane*, the *death-swoop*.

Cholera is endemic in India and the Equatorial regions. Sporadic cholera may be traced occasionally to some of the following causes:—Injection of certain corrosive poisons; abuse of drastic purgatives; immersion in a cold bath during violent perspiration; iced drinks when the body is heated, or ices after a surfeiting repast. Not many years ago, four individuals were seized with vomiting and excessive diarrhoea after partaking of ices in a Café of the Palais Royal. It was thought that they were poisoned; but, upon investigation being made, it was proved that the ices contained nothing in themselves noxious. Amongst the exciting causes have also been enumerated, the abrupt transition from a high to a low temperature, exposure to violent sun-heat, and, finally, extreme and sudden moral emotions occasioned in nervous individuals.

Abrupt transitions from one temperature to another seem to be the most efficient and powerful cause of endemic cholera. In India, where chilly nights succeed to burning days, and the poorer classes lie on the dewy earth after having been exposed all day to the rays of the sun, cholera prevails endemically; but among the better-conditioned natives of that country, it is observed to make its appearance only in the sporadic form.

It is difficult to state precisely what are the causes of epidemic cholera: the disease is found to exist at the present moment in climates the most diversified. With regard to its *symptoms*, it should be observed that some individuals *have* premonitory inti-

mations of its approach: these are generally gastric embarrassment or dysentery; but most frequently the attack takes place in a very sudden manner.

State of the Digestive Apparatus.—Uneasiness about the epigastrium; pains in the bowels, acute, and principally felt in the region between the umbilicus and the xyphoid cartilage, and not increased by pressure; sinking of the belly; burning thirst; stools remarkable for their excessive frequency (perhaps from sixty to eighty in the course of the four-and-twenty hours); repeated vomitings, but not so numerous as the dejections (a circumstance which marks the distinction between epidemic and artificial cholera). As the disorder proceeds, the vomitings subside. The tongue presents us with nothing remarkable.

Circulatory Apparatus.—The pulse is sunken; the blood seems to retreat from the surface of the body. The skin is pale and icy; the nose and lips generally are of a livid bluish tint; and some observers have remarked that the blood abstracted by venesection resembles a black thick oil.

Secretions.—What is commonly said regarding the abundance of the biliary secretion in this complaint, is certainly an exaggeration. In some cases, the matter discharged in vomiting and by stool does not contain an atom of bile. In a great number of cases the urine is altogether wanting. The skin is covered with a cold clammy sweat.

State of the Nervous System.—With respect to the disturbance of innervation, cholera presents us with three varieties:—1. Cramps of the limbs; convulsive motions, sometimes confined to the extremities, and sometimes extending to the trunk also; the diaphragm and heart may be affected with convulsions. Then succeed tumultuous and irregular palpitations, and a dyspnoea that may occasion death. 2. A tendency to faintings and swoons. 3. A rapid sinking of the vital powers; a great weakening, without utter insensibility. In almost every case the intellectual faculties remain undisturbed.

The progress of cholera is most generally regular and continued: it is, however, not always so; it is sometimes intermitting, and constitutes in this form the *intermittente cholericque* fever of certain authors. On an average, the duration of cholera is from three to five

days; sometimes, however, it kills in four-and-twenty hours—aye, perhaps in two hours, or even in some minutes.

The termination of the sporadic and endemic kind is generally favourable; but a return to health, when the complaint rages epidemically, is extremely rare.

Treatment.—Some of the most opposite kinds of treatment have been adopted in this ruthless disorder: in order to meet the internal congestion, certain practitioners are lavish of bleedings and revulsives; others, to arrest the excessive evacuations, employ narcotics and cold drinks. The English, with a view to set right the mucous membrane of the intestinal canal, gorge their patients with calomel. In other countries, antispasmodics are employed to oppose the nervous disturbances, and tonics to rally the sinking powers. Finally, physicians in India dose their choleric sick with a draught composed of brandy, rum, pimento, pepper, camphor, &c. which I must confess, said M. Andral, seems to me little better than a kind of *sauve qui peut* remedy.

The treatment which I should recommend would be to take blood freely from the young and vigorous, taking care to desist as soon as convulsions or fainting are observable; for bleeding invariably augments convulsive accessions, unless the latter be symptoms indicative of meningitis. It will be found a good plan to apply friction to the skin, with a flannel cloth dry, and soaked in a decoction of aromatics. Sinapisms also should be put to the limbs. Internally, our main stay is opium, which should be given in every possible form, both by the mouth and in *lavemens*. At the same time the patient should be treated with emollient drinks of rather a high temperature. But it may be asked, do I mean to prescribe calomel altogether? Why, at the very moment at which I am now speaking, there are thousands of patients taking it, and some of them, no doubt, will get well. I must confess, however, that I cannot account for the prostrate veneration which English physicians pay to this metallic drug. I can only compare them to those poor Indians who, faithful to their ancient creed, persist, with words of mystic import, in plunging their sick into the charmed waters of the Ganges!

REMARKS

ON THE

SECOND SOUND OF THE HEART.

To the Editor of the London Medical Gazette.

SIR,

IF the following remarks on a subject, which has of late attracted much attention, should appear to you deserving of a place in your journal, I shall feel obliged by the insertion of them.

I am, Sir,

Your obedient servant,

HENRY J. H. BOND.

Physician to Addenbrooke's Hospital.

Cambridge, March 28.

Admitting the probability that the explanation given by Drs. Corrigan and Haycraft of the impulse and sounds of the heart will be found substantially correct, yet I cannot but think that there are difficulties attending the cause assigned by Dr. Haycraft for the production of the second sound, which materially affect its validity; and my object is to consider if these difficulties may not be reconciled at no greater expense to the new theory than is compatible with a simple change of locality in the reference of this second sound, without altering the principle of such reference.

Dr. Haycraft accounts for the second sound in the following manner. "The systole of the ventricle produces a motion of the blood towards the aorta; the ventricle suddenly ceasing to contract, this motion is suddenly checked, and sound is produced." (Vid. Med. Gaz. Nov. 23, 1830)

Now there is an obvious circumstance, apart from all other considerations, which would at once induce us to refer the second sound to some condition or action in the auricle, rather than in the ventricle or in the aorta—viz. that the second sound is heard loudest* in the situation corresponding to the auricle.

But, further, the check given to the motion of the blood in the aorta by the cessation of the ventricular contraction,

cannot well be compared to the check given to that fluid by the expansion of the ventricle arriving at its limit; for in the latter case the arrest is complete and sudden, whereas in the former instance it is but imperfect and gradual, from the reaction of the elasticity of the aorta; as the arterial current, though accelerated at intervals, flows continuously. Also, the ventricle, during the diastole, by the closing of the aortic valves is converted into a cul-de-sac; while at the completion of the systole of the ventricle, the arrest of the blood in the aorta is favoured by no such condition of the artery, which remains free and open; so that, with such a difference in respect to mechanical circumstances, we should scarcely anticipate that an effect would take place in the aorta from the systole of the ventricle, so similar to that taking place in the ventricle during its diastole—viz. the production of the second sound.

I may add that the experiment (vid. *ibid*) adduced by Dr. Haycraft to illustrate and confirm his explanation, scarcely applies with sufficient accuracy, as the bladder and apparatus employed in it, forming likewise a cul-de-sac, by no means fairly represent the conditions of the aorta during the ventricular systole. But why not refer the second sound to a similar circumstance occurring in the auricle during the ventricular systole, with that alleged as occurring in the ventricle at the end of the diastole, and producing the first sound—viz. *the sudden arrest given to the further ingress of blood into the auricle by the complete occlusion of the auriculo-ventricular orifice at the instant of the ventricular contraction?*

It is probable, from the structure and capacity of the auricle, that it never contracts so completely as the ventricle, but that it serves rather as a receptacle to the terminating veins, or as a sinus to the ventricle, than as a hollow muscle corresponding in function to the ventricle. We may suppose, therefore, that the veins continue to replenish the auricle as long as the blood continues to flow into the ventricle, and that the muscular structure of the auricle acts during this time only so as to assist the return of the blood from the veins into the ventricle; but that a sudden check is given to the blood entering the auricle by the closing of the auriculo-ventricular valves during the ventricular systole: the ar-

* Dr. Elliotson, I observe, in a late clinical lecture alluded to this circumstance as inclining him to adhere to Laennec's reference of the sounds of the heart.

rest thus given to the blood entering the auricle, will correspond to what takes place in the ventricle when its parietes arrive suddenly at their maximum of dilatation, and thus be alike calculated to produce the phenomenon of sound.

In favour of this reference of the second sound, besides the locality of the sound, we have its greater clearness and intensity, which is agreeable to the comparative thinness of the auricular parietes, by which the fluid is approximated nearer to the ear, and consequently the sound depending on its arrest rendered clearer and more intense. The fact, also, that this sound is unaccompanied by any *sensible* impulse, or merely such as is felt as a slight vibration, agrees well with the weakness of the muscular structure of the auricle: whereas, in conformity to the greater muscular volume of the ventricle, the impulse accompanying the first sound, which evidently partakes of the character of a muscular effort, is very forcible. This absence of impulse, it is allowed, would equally apply to the reference of the second sound to the blood checked in the aorta; and I insist upon it here, not as an objection to Dr. Haycraft's explanation, but as an independent argument in favour of that which I have suggested.

But again, the second sound follows almost instantaneously on the first: now the moment the ventricular systole begins, the arrest to the blood entering the auricle must begin likewise, by the raising of the auriculo-ventricular valves; but the arrest of the blood entering the aorta can only take place at the completion of the ventricular systole. Does not this, therefore, favour the notion that the second sound depends on the former rather than on the latter circumstance, and have we not thus both the *time* and *place* of the sound in support of its reference to the auricle, and not to the aorta?

It is, perhaps, not too much to say, that the very circumstance of this view of the case reconciling in *one* main respect the old with the new theory—viz. that of locality in the reference of the two sounds of the heart—is in favour of its being correct; since it is more probable that what had been so long and so generally believed should be partially true than altogether wrong.

I may here mention a case which occurred last year at St. Bartholomew's

Hospital, and which, I think, in a negative sense, is favourable to the explanation I have proposed of the second sound. It was one of disease of the heart, but in which the only morbid condition of this organ was an inordinate patulousness of the tricuspid orifice, to the degree of admitting with readiness the passage of four fingers, without any marked alteration of the bulk or capacity of either auricle or ventricle, or any change of structure in the valves. During life, *two sounds of the heart could not satisfactorily be distinguished**, but there was a strong pulsation of the jugulars. It would appear, therefore, that in this instance the auricle and ventricle scarcely existed as two distinct cavities, and that, in consequence, the phenomenon of the second sound, which, as I suppose, requires for its production that the communication between the auricle and ventricle should be suddenly and completely interrupted, and that therefore they should momentarily exist as two separate cavities, did not occur.

I take this opportunity of stating that I have at present a patient under my care, in Addenbrooke's Hospital, in whom the state of the circulation is unusually favourable to the determination of the principal point in the new theory,—the non-synchronousness of the arterial pulsation with the impulse felt in the situation of the left ventricle. In this patient, a young female, whose complaint is periostitis, the arterial pulsations seldom average more than 45 or 46 in a minute, while in every other respect the circulation appears to be normal. In this instance, the impulse at the chest most distinctly precedes the pulsation at the wrist; while the pulsations felt at different points of the arterial circulation, as in the radial, carotid, and facial arteries, are apparently quite synchronous.

If there be any who, undecided by the results of actual observation, should be disposed to appeal to theory in favour of the arterial pulsations being *sensibly* not synchronous at all points of the system, I think they would presume upon more support from theory than theory would be ready to concede. For when we recollect that the interval

* The right auricle presenting itself so much more in front than the left auricle, the second sound is probably due principally to the former.

which, mathematically, must intervene between the ventricular impulse and the arterial pulsation, is not regulated simply by the rate at which the particles of the blood are propelled, but by the velocity with which an undulation is propagated from the heart, which is always much greater, and the motion of which is far in advance of the actual progression of the fluid particles, theory and analogy would instruct us to conclude, that our ability to distinguish intervals of time by means of the touch would be inadequate to detect the minute aberrations from actual synchronousness in the arterial pulsations, at different distances from the point where the impulse producing these undulations originated.

Many erroneous notions are commonly entertained, I conceive, respecting the velocity and forces of the circulation, from not sufficiently bearing in mind, how differently these are affected when the circulation is carried on in a system of close but extensible tubes, from what is observed to take place when the blood is allowed to spout freely from a divided artery; the blood by no means shooting along under our finger applied to the wrist at the same rate with which it is projected from the orifice of a divided artery. This is sufficiently obvious; but I am much mistaken if the familiar inferences we draw from observing the characters of the pulse, are not associated with the notion of a much greater velocity of the circulation than is actually the case; and if thus, the distinction between the rate at which the blood flows along the artery and the velocity with which its undulation is conveyed and rendered sensible by the touch, is sufficiently considered.

We have a familiar instance of the effect which a free opening at some point of the circulatory system has upon the force necessary to circulate the blood, in what takes place so frequently in venesection—viz. *syncope at the moment when the vein is closed*; which may, I think, be accounted for in the following manner. While the blood is flowing, the resistance to the circulation is diminished by the free opening that is made; and the force of the heart to propel the blood, though reduced by the weakness consequent on the abstraction of blood, is still adequate to maintain the circulation, because the diminished resistance renders less force

necessary; but the moment the vein is closed, the resistance is again restored to its usual amount; but the force of the heart to circulate the blood remains reduced; and the blood not circulating freely through the brain, fainting ensues. This explanation seems so obvious that I think it must have occurred to others, though I do not recollect to have met with it.

OEDEMA OF THE LUNGS.

To the Editor of the London Medical Gazette.

Fort Pitt, Chatham,
March 27.

SIR,

SHOULD you consider the accompanying observations on oedema of the lungs worthy of a place in your Gazette, you will oblige me by inserting them in an early number.

Your constant reader,

W. J. FAGG,
Assistant Staff Surgeon.

I am induced to offer the following observations on oedema of the lungs because I believe it to be a much more frequent cause of death than is generally admitted. We are, no doubt, greatly indebted to Laennec for our present improved knowledge of diseases of the chest; and though we have still difficulties to encounter, they bid fair to be overcome by the means of diagnosis that he has left behind him. A reference to our standard works on the practice of physic will shew how imaginary and imperfect the remarks are on the disease in question. Many speak of it only in connexion with hydrothorax, and that in a most cursory manner; whilst Dr. Mason Good asserted that he did not think there was any advantage in separating the two diseases, and in the next page discussed the propriety of paracentesis. Dr. Darwin did give a distinct description of the disease. In vol. ii. of his *Zoonomia* he says, "The hydrops thoracis is distinguished from the anasarca pulmonum, as the patient, in the former, cannot lie down half a minute; in the latter, the difficulty of breathing which occasions him to rise up comes on more gradually." I am inclined, however, to doubt the correctness of this observation; the symptoms in the second case I shall relate came on very suddenly, and I have generally found this the case. Fortunately, auscultation affords a much more satisfactory means of diagnosis, and we

cannot now easily confound the two diseases. Dr. Baillie, in his *Morbid Anatomy*, says, "It has not occurred to me to see any well-marked examples of this disease (anasarca of the lungs), but it has been observed by others." I cannot but think that Dr. Baillie must have sometimes overlooked this affection. My attention was early directed to the frequent occurrence of the disease by Dr. Addison, of Guy's Hospital, and by Andral and Chomel, at La Charité; and I have since met with many cases. I believe, therefore, Laennec was right in saying that the death of a patient was often improperly attributed to small effusions into the pleural bags (now considered to be cadaveric); the lungs at the same time, instead of being compressed, filling the whole of the chest, and containing large quantities of serum. I have one more remark to make with regard to the diagnosis in this disease: Laennec says that auscultation affords the same results as in pulmonary catarrh, and therefore the diseases are apt to be confounded. In the first case I shall relate, the respiratory murmur is said to have been like the *cooing of a dove*; it was more like this sound than any thing else I can compare it to. It struck me, in this case and a few others, to be a more *plaintive or moaning* sound than I have heard in any other disease, and altogether different from the crepitant rattle of pulmonary catarrh. I am sorry I was not able to verify it in the second case, not having seen the patient before death. In one of the cases detailed by Laennec, he says the respiration was "*occasionally attended with a peculiar rattle*;" and Dr. Forbes, the translator of Laennec, in a case of this disease, says there was a "*slight peculiar sound*" attending the respiration. May not this lead us to hope that we may, ere long, form a more decided diagnosis in this affection; the dropsical state of the patient, and *sudden accession* of the disease, proving of some assistance?"

CASE I.—A private of the 81st regiment, aged forty-two, of a plethoric habit of body, was the subject of general anasarca for nine months, which was at one time supposed to be connected with hepatic derangement. He suffered from frequent pulmonic attacks in Canada; and on a voyage from thence to this country, the chest became again affected, and he was admitted into hospital on his arrival, with anasarca of the ex-

tremities and face, the respiration being laboured, the heart's action diffused, with increased impulse, the radial pulse synchronous with it. Auscultation discovered the respiratory murmur to be audible throughout the chest, but at each inspiration the sound conveyed to the ear was like the cooing of a dove, particularly at the lower part of the right side. The dyspnoea increased, and soon amounted to orthopnoea, which became more and more distressing until his death, which took place three days after admission, the patient having walked into hospital. The respiratory murmur was discernible at the lower part of the chest twelve hours previous to dissolution.

Sectio cadaveris, twenty hours after death.—On opening the chest, the lungs were prominent and did not collapse; nearly a pint of clear serum was contained in each pleural bag. On removing the lungs and making numerous sections into them, large quantities of sero-sanguineous fluid followed each incision. The pericardium contained about six ounces of serum; hypertrophy, with dilatation of the left ventricle of the heart, which was nearly double the natural size. Many soft fimbriated vegetations were pendulous from the free edges of the semilunar valves of the aorta; and one portion formed a bond of union between two of the valves. About a pint of serum in the peritoneal bag; the liver firm and granulated; its serous covering opaque at some parts. On removing their capsules, the kidneys presented the pale, mottled appearance, described by Dr. Bright.

CASE II.—A private of the 87th regiment, aged 46, was upwards of six years in the Military Lunatic Asylum for melancholia, his chief hallucination being that he believed himself to be Christ, and consequently omniscient; that he was an excellent doctor, and could cure all diseases. His bodily health was good during nearly six years of his confinement in the asylum, but latterly he became rather emaciated, with slight cough and oedema of the lower extremities. On the 20th inst. he complained of having a cold; 21st said that it was worse, and that his breathing was "stuffed." On the 22d he was suddenly attacked with orthopnoea; countenance pale and languid, pulse slow and weak, but the skin warm to the extremities. From this time the oedema of the lower limbs increased, and began to affect the

upper extremities and face; the respiration became gradually more laboured, and the action of the heart more slow and feeble. He died on the morning of the 24th. I did not see the man for some weeks before his death, and am not aware if auscultation was employed.

Sectio Cadaveris, 26 hours after death.

—*Head:* Forehead low, vertex high and prominent; cerebrum firm, and very bloodless; pineal gland large; a globular vesicle, of the size of a garden pea, was attached to the anterior part of the velum interpositum, and contained a glairy fluid; cerebellum soft.

The left side of the chest contained two or three ounces of serum; the right lung adhered throughout to the costal and diaphragmatic pleura. On removing the lungs they were found to be of enormous size and weight, and preserved the impression of the finger. On making incisions into their substance, a large quantity of frothy serum made its escape, and the lungs became much reduced in size. The close covering of pericardium adhered to the loose portion in various places, by the intervention of a delicate pseudo-membrane; considerable hypertrophy and some dilatation of the left ventricle, retroversion of the aortic valves, with deposition of bony matter at their bases, and atheromatous deposit beneath the lining membrane of the aorta. Kidneys tuberculated beneath their capsule, and exceedingly small, the two weighing only 5½ ounces.

ANALYSES & NOTICES OF BOOKS.

“ L'Auteur se tue à allonger ce que le lecteur se tue à abrégier.”—D'ALEMBERT.

A Vade-Mecum of Morbid Anatomy, Medical and Chirurgical; with Pathological Observations and Symptoms. Illustrated by upwards of Two Hundred and Fifty Drawings. Royal 8vo. Burgess and Hill.

THIS work was published anonymously last year, but is now avowed by the author, Mr. Money, who, we understand, has long been a diligent cultivator of morbid anatomy. The volume consists of forty-eight plates, exhibiting, upon a small scale, but in a sufficiently distinct manner, upwards of two hundred and

fifty of the more common appearances of disease in the several organs of the body. To these are appended fifty-one pages of illustrative letterpress, containing observations on the several changes of structure exhibited in the plates, with the character of the symptoms present during life. The chief aim of the author has been to furnish a concise but faithful transcript of the labours of the most eminent writers on morbid anatomy. With this he has blended some account of what he has himself observed, during many years of close application to the subject. Diseases of familiar occurrence have engaged the attention of the author, to the exclusion of those rare and curious appearances which constitute so large a portion of the works of his predecessors in this department of medical science. The sketches are made either from specimens in the private museum of the author, or from recent dissections.

Mr. Money's volume appears to be well calculated as an introduction to the study of morbid anatomy; but we must observe that colouring the plates would have added largely to its usefulness. We presume that this was omitted only on the score of expense. The author's illustrative remarks are well selected and concisely expressed. We doubt, however, whether it be desirable to use such terms as sero-gastritis, mucro-gastritis, or hepatic apoplexy. We would also like to inquire why the author uses the term *melanosis*, rather than *melanosis*, which derivation suggests and custom has sanctioned. These are, however, trifling faults, and upon the whole we have been much pleased with the work. As a specimen of the author's mode of treating his subject, we select the following sketch of the diseases of the prostate, vesiculæ seminales, bladder, and urethra:—

“*SYMPTOMS: Inflammation of the Prostate.*—Pain and heat in the perineum and rectum; tenesmus; constant desire to pass the urine, without the power to do so; acute pain on pressure of the gland.

“*Scirrhus.*—Lancinating pains darting through the gland; dysuria, tenesmus, and an inability to bring the thighs close to each other; constipation.

“*Ulceration.*—Frequent desire to pass urine; micturation, tenesmus, burning sensation in the perineum, with pain of the meatus urinarius; ardor

urinæ; discharge of matter per urethra; emaciation; dejected and pallid countenance; gland painful to the touch.

*" Abscess of the Vesicula Seminales. —*All the symptoms of inflammation of the prostate, with increased pain and irritability of the testes; tenesmus, shivering.

*" Ulceration. —*Pain, deep seated and lancinating; tenesmus, ardor urinæ, extreme irritability of the testes; great emaciation.

*" Cystitis. —*Heat and pain in the hypogastrium; frequent attempts to make water, which is evacuated in small quantity, and with great pain; or there is a total retention of the urine, with a strong desire to void it; the urine, at first limpid, becomes turbid and reddish.

*" Chronic. —*Dull heavy sensation behind the pubis, with sense of weight in the perineum; slight tenesmus; constipation; difficulty in passing urine; it is generally loaded with mucus or pus.

*" Ulceration. —*The discharge is generally mixed with blood, sometimes with a greenish fœtid matter; great emaciation.

*" Fungi. —*Dull pain, with a constant desire to pass urine; a sensation as if girt with a cord at the hypogastric region; weight and uneasiness about the kidneys; aching pain in one or both testicles; discharge of pure blood, or blood and mucus; itching at the meatus; constipation.

*" Inflammation of the Corpora Carnosa. —*Deep-seated pain in the pelvis, with a sense of weight, and constant desire to pass urine.

*" Ulceration. —*Pain, deep seated and lancinating; and if ulceration be extensive, tenesmus, and ardor urinæ, with wasting of the body.

*" Calculi. —*Frequent inclination to pass urine, dysuria, itching or pain at the meatus urinæ externus; nausea, vomiting; increased pain after discharging the water; tenesmus; violent exercise increases the pain, and is generally followed by bloody discharge from the bladder, pulling the prepuce over glans penis; muco-purulent discharge.

*" MORBID ANATOMY. —*When the mucous tissue of the bladder is acutely inflamed, there is a suffused redness of the part, with bloody points, more or less mucus adhering to its healthy surface.

" Ulceration sometimes advances so

far as to destroy a portion of the bladder entirely, and to form a communication between it and the neighbouring parts, as the abdominal cavity, rectum in the male, and vagina in the female. Sometimes the inner surface of the bladder is lined with a cheese-like substance, but not uniform on its free surface, but divided into innumerable irregularities.

" The mucous, muscular, and peritoneal coats are thickened.

*" Corpora Carnosa —*Are found at times enlarged, ulcerated, scirrhous, or ossified.

*" Hydatids —*Have been found adhering to the inner surface of the bladder.

*" Fungi —*Arise from several parts of the internal membrane at the same time; the nuclei of these tumors are capillary veins, which are enlarged, and intersect each other, so as to form an imperfect lacework; from this matting arise thousands of minute pencillated vessels, which are so intimately woven together as to give character to the tumor during life, but which disappears at death, and presents nothing more than macerated cellular membrane." &c. &c.

An Introduction to the Study of Human Anatomy: with Illustrations. By JAMES PAXTON, Member of the Royal College of Surgeons, &c. &c. 8vo. pp. 415. Sherwood & Co.

THIS is really a very pretty as well as a very useful book. There are many more elaborate works on anatomy, but we know of none more calculated to render interesting the first steps of what after all is a most dry study. Graphic is combined with descriptive anatomy; so that, instead of having to turn to certain plates and figures, the very act of referring to which breaks the thread of the description, marginal cuts, for the most part excellently well done, appeal to the eye at the very moment that the letterpress appeals to the understanding. There are two or three copper plates of the skeleton, but, with this exception, the illustrations are by means of woodcuts, and the perfection which this branch of the art has attained, leaves little to desire where plans merely, or at least delineations, without much depth of shading, are required. Of the

execution of the whole we can speak very favourably. The author has borrowed liberally from Cloquet, and he acknowledges the obligation.

COLLEGE OF SURGEONS.

To the Editor of the London Medical Gazette.

SIR,

THE liberality and good spirit displayed in your observations relative to the government of the College of Surgeons, have induced me to offer you a few remarks on the same subject. I will premise by saying, that all who have the true welfare of their profession at heart, and wish that its members should hold a high rank with the public for those qualities which command the respect of mankind, will feel sorrow at the late disturbance at the College; because I fear that the unbiassed judgment of the better part of society will see, in the conduct of both parties, the dominant power of some of the bad feelings of our nature.

The government of the College is one that is, even at present, and will soon be more strikingly so, an anomaly in a free country; it is self-elect and irresponsible. I will allow that the men elected are, almost without exception, the very persons who ought to be at the head of the College, and that public opinion and the public press prevent any glaring misgovernment; but it is the principle of self-election against which we contend. No government ought to possess the power to fill up vacancies by its own authority, and to control large funds without responsibility to the contributors of those funds.

There is no reason to think that any misappropriation of the College funds takes place; but they are said to be very large, and, although we may have the greatest confidence in the integrity of the present members of the Council, it is contrary to all principle that any self-elected body of twenty-one out of a commonalty of five or six thousand, should have an irresponsible trust of so large a sum as has been accumulated by the contributions of this commonalty.

Perhaps the amount of the fund may not be so large as is supposed; and this among other reasons might be adduced to shew the propriety of publicity.

I would appeal to the Council itself, whether it would not be wise to concede in time—whether it would not be better to conciliate the great body of members by timely reform, and thus prevent what every body who knows any thing of human nature must deplore—such a radical reform as would give to the whole five or six thousand members the right of choosing the governing body. I am quite sure that the majority of the members would be better pleased with moderate reform than such as is contemplated by a few individuals who are seeking their own notoriety under the mask of public benefit.

If the members of the Council would seriously consider the signs of the times, they must come to the conclusion that they cannot *long* remain a self-elect and irresponsible body. How much more pleasing must it be to men of honourable minds to do a public good, than to have it forced upon them, as forced it must be, if they continue to resist so just a demand. There can be no doubt that if the right of election was in the whole commonalty, many improper persons would be elected into the Council. I would therefore humbly suggest, that five hundred of the senior members, by rotation, should be allowed the title of fellows, and that they should elect the Council; or that all members of ten years' standing should have a vote.—Some such modification as this would content the great body of the members—would remove all just causes of complaint—and would at once annihilate the power of certain persons, whose popularity alone rests on the circumstance that there is some injustice in the present plan of the College government.

Should such a change in the government of the College render it necessary to obtain an act of Parliament, I am quite sure that the unanimity which would prevail among us, and the self-evident justice of the proposed change, would insure success in an application to the legislature.

I have the honour to be,

Your obedient servant,

LIONEL BEALE.

Bedford-Street, March 28, 1831.

MEDICAL GAZETTE.

Saturday, April 2, 1831.

"Lleat omnibus, licet etiam mihi, dignitatem *Ar-tis Medicæ* tuert; potestas modo veniendi in publicum sit, disendi periculum non recuso."—CICERO.

THE APPRENTICESHIP SYSTEM IN THE IRISH COLLEGE OF SURGEONS.

"It is deeply to be regretted," says a competent authority, "that the members of the College of Surgeons in Ireland, in seeking for a new charter, did not seize that favourable opportunity of raising themselves to the grade which they ought to hold in society, by annulling the unnecessary and disparaging appendages of apprenticeships altogether—the only remaining badge that marks the degradation to which the most useful of all professions was reduced in ignorant and half-civilized times." We honestly confess that we entertain very little regret about the matter—it is only matter of wonder with us by what strange fatuity, or singular obliquity of intellect, these people have been so unlucky as to lay themselves open to the charges which may now fairly be brought against them. Every one can appreciate the motives by which they have been actuated—motives quite too glaring and obvious to be permitted to pass without something more than a transient tribute of our censorial regard. By the perpetuation of the apprenticeship system, this College contrives to secure for its own peculiar set certain corporate privileges, as well as, exclusively, the County Infirmaries of Ireland. It is true that the members of the Council recognize, since they have procured their new charter, another class of candidates for their honours, besides that of apprentices, but the latter have a notoriously decided preference, and thus the infirmaries are

filled with surgeons chosen from the favourite and *worse-educated* members of the Irish College.

In the remarks which we are about to make, we shall clearly show to all the world that the system for a long time pursued, and now finally readopted by this College, is essentially and radically bad. An apprenticeship, in its very head and front, is a thing of offence—it is a bond-servitude, and entails upon its subject all the disgusting circumstances of such a condition. It degrades the *profession* upon which it is engrafted into the rank of a handicraft; it is a cloak for idleness and presumption; it is a pretext for extravagance on the one hand, and the gratification of money-getting on the other; in its very origin it was disreputable, though at the time scarcely avoidable; and even now, though by long usage its ruder features would seem to be somewhat smoothed down, it is an insulting stigma upon the intelligence of the age. The apprenticeship of the Irish College had been hitherto looked upon pretty much in the light of one of those absurdities transmitted from former times, and only requiring a fitting opportunity to be abolished altogether. But absurd though the system was, it was yet felt in certain quarters to be of rather too profitable a nature to be rashly abandoned; and accordingly, by one of the most impudent intrigues ever reconciled to the consciences of the perpetrators by the odour of "filthy gain," the managers of the new charter of the College of Surgeons in Ireland contrived to perpetuate their own disgrace—content, no doubt, to do so, for the sake of preserving their beloved badge.

The grossness, however, of their conduct is more than surpassed by the recent assurance of one of their advocates. It is rather too bold a thing to find

any man at this time of day standing up in defence of such a system as that in question—still more so when it is done upon the ill-concealed principle of upholding an unjust monopoly—but it is utterly odious when the said advocate is a hired retainer, and with hireling versatility employing his puny efforts in behalf of the interested corporation to which he belongs.

We have been promising ourselves for the last few weeks the pleasure of bestowing a little castigation upon Dr. Jacob—richly earned by the effrontery of one of his late productions; but other more pressing topics, connected with a College nearer home, intervened. In now in some measure putting our purpose into effect, we must necessarily, though reluctantly, rescue some parts of that production of his from the obscurity and oblivion which rightfully attach to it, in consequence of the *sentina* to which it was originally transmitted; its most fitting place, no doubt. But we shall not disgust our readers by laying before them the coarse ribaldry in which the document is couched; nor shall we mix up the question upon which we mean to offer some remarks with any notice of the differences which subsist between the angry Doctor and Mr. Carmichael. Personalities are our aversion, though we cannot help annexing some little value to them at times; they generally, indeed, present us with some of the most infallible indications of a tottering and rotten cause.

About fifty years ago, when there was yet no school of surgery in Ireland, the profession, or rather the craft, there obtained a charter. An apprenticeship was then all in all: there was no alternative—no other mode of getting the necessary knowledge required for the calling, than by being bound for a certain number of years in bond-servitude to a master; and the charter confirmed the necessity of pursuing such a course. An apprenticeship, according to that

charter, was the sole qualification of candidates who wished to be examined for a diploma. Time, however, presently exposed the barbarism of such a regulation; it was seen that some more efficient and precise system of surgical instruction should be adopted by the Dublin people, as well as by others—that the apprenticeship was very good in its way, for putting into the pocket of the master a fee of one hundred and fifty guineas, and for securing to the bond-slave all the good things reserved for members of the corporation, after a five years' indulgence in idle amusement—but that still, as shame was not utterly extinct in the breasts of the managers, something more should be done, if they were not content to rest in the enjoyment of a Circean swinishness, and to bid defiance to the force of public opinion. In short, an understanding was entered into that certain certificates of hospital attendance, dissections, &c. would make the candidate more welcome when presenting himself before his examiners; but still it was clearly understood that this was entirely optional with him—no attendance upon lectures, no attendance upon hospitals, no dissections, being required by the original conditions of the bond. The apprenticeship was the essential point: all the rest was secondary—mere “leather and prunella.” But this state of things could not possibly be altered as long as the old charter was in force; for according to the statement of the College advocate, there was no power under the old charter to organize a better system; at least this, he informs us, was the avowed purpose for which the recent act of incorporation was applied for. Well then, in compliance with the voice of an indignant public, the heads of the establishment undertook, after many a reluctant struggle, to reform their abuses. It was naturally expected that now was the time to vindicate the respectability

of the surgical art in Ireland—to make an honourable stand before the world as members of a liberal profession, and, in a word, to wipe out the barbarous blot stamped upon them by the long continuance of apprenticeships in their college. But, lo! in the very fore-front of the new charter they secure the continuance of the handicraft system; and, while they pretend to throw open the college, though in the most grudging way in the world, to unindentured candidates, they are not ashamed to reserve all the corporate privileges, and especially the valuable county infirmaries, for their own *clique*—the indentured bond-slaves. The mean, little, narrow, and ungenerous motives that dictated such an arrangement, and the paltry arts that must have been had recourse to in intriguing for its confirmation, are duly appreciated by every reflecting individual in the community. But we must confess we have not been quite prepared to behold the exhibition made by the individual already alluded to, who, in this present year of grace, comes forward with as much valour as any old barber-surgeon of the sixteenth century could have done, with a Mambrino on his head, and a pole, of red and white alternate, in his hand. The doughty Sir Arthur, this valorous little champion of barber-surgeons, sees nothing at all ridiculous in the apprenticeship system of education—nothing barbarous—nothing disgraceful—nothing *dishonest*. He admits that it *does* sink the profession into a trade or handicraft, but that there is nothing in that—nothing degrading. He admits and laughs at the curious circumstance, that a young man of family, upon becoming indentured, forfeits his heraldry by it—loses his arms—and can no longer style himself an esquire. How ridiculous to think any thing about that! He goes further, and informs us that all the covenants in the indenture-bond are dead letter, nugatory—except that which binds the master to instruct

or *cause him to be taught or instructed*, in return for the fee of 150 guineas." Let the gallant champion of barber-surgeons stop there. Does he wish us to believe that the master ever fulfils this part of the bond? If he does, he wishes us to believe a most egregious untruth, of which we should be glad not to think his valorous doctorship capable. It is notorious that many masters provide no education whatever for their apprentices—indeed scarcely know their faces, they have so many of them; while from every one of them they receive, as a matter of course, the sum of 150 guineas. It would seem then, one should think, that this part, too, of the indenture was dead letter, "ridiculous, and nugatory": in short, the whole apprentice bond, by the admission of the champion, must be considered as a mere joke—always excepting the payment of the 150 guineas, which, we suppose, will still be looked upon as something too serious to be laughed at.

But what will the reader think when we inform him, that not a single sixpence of this money is allocated to the instruction of the apprentice? We have before us a parliamentary paper, dated a few years back, (and consequently somewhat under the present rates) purporting to exhibit the "Expense of educating a Student to the profession of Surgery according to the regulations of the College of Surgeons in Ireland." These are the items:—

	£	s.	d.
Apprentice fee (150 guineas)	170	12	6
Stamp on Indenture	6	10	3
Registry Fees to College.....	11	7	6
Probable expense of 5 years' Lectures, Hospitals, Dis- sections, &c. &c.....	60	0	0
Fee for Letters Testimonial	34	2	6
Total amount.....	£283	12	9

That is, in our English currency, about
260*l.* 18*s.**

*ates the maximum expenditure

The actual expense, then, incurred in obtaining the necessary instruction, is, it seems, not much more than a third of that which is paid for the apprentice fee, and a fifth of the whole amount paid to the College. This is surely a most exorbitant thing, when we take into account the actual average expense of a good surgical education. It was clearly intended by the original managers of the charter, that the 150 guineas should at least cover the whole expense of the apprentice's education; and a most liberal allowance it was—as it exceeds by far the most expensive surgical education that can be given at the present day. Upon what ground, then, does it still continue to be paid and received, when its original object is so well understood to be completely altered? It is paid and received under a false pretence; nominally, to defray the expenses of the pupil's education; but, *bona fide*, the master's object is to put the fee in his own pocket, and the apprentice's to secure his eligibility to a county infirmary, or whatever other privileges his connexion with the College may offer. To be sure, when all this is known *a priori*, and nobody is deceived—both the contracting parties acting with their eyes open—it is not exactly to be termed a *dishonest* transaction; but we have our doubts whether, in the event of litigation, the apprentice might not insist on having the letter of his bond fulfilled, and compel his master to defray the whole amount of the fees of his education.

We shall resume this subject in our next.

SEQUEL TO OUR REPORT
or

WAKLEY'S "ENTERTAINMENT" AT
THE CROWN AND ANCHOR.

We mentioned in our late report of this affair, that, lulled by the "drowsy

syrup" of Wakley's oratory, and his eternal reiteration of certain well-known bye-words, we sunk into a slumber, which not all the wrangling and noise that prevailed till the final breaking up of the assembly could disturb; and we also mentioned, that upon our awaking we could discover no trace that such a thing had ever been—in fact, that we found the whole business had gone off in smoke. Our curiosity, however, was not entirely satisfied: we thought that of the agitation of so "glorious" a question as that of founding a pure and perfect College of Medicine in a great nation—a plan so pregnant with "indescribable" blessings to both the profession and the public—the public prints would have been filled with ample reports;—but no; we were doomed to be sadly disappointed. We looked next morning into all the journals, but we looked in vain: in one paper alone could we detect a notice of the transaction, but it had more the air of an advertisement than of a decent report of a public meeting. The writer, too, of the scanty little notice seemed to have "dropped off" just at the place where we ourselves did; for not a word could we find about any thing said after Wakley's talk; we were merely informed that "some other gentlemen" (observing a respectable incognito, of course) addressed the meeting; after which a committee was appointed—thanks were returned to Mr. Hume for his *dignified* conduct in the chair—and then the assembly separated."

So much for the interest excited among the gentlemen of the press by this "glorious" meeting: but, of course, it was too good a thing for Wakley to let drop. We expected this to be the case, and waited patiently for ten days to see what would come forth. Forth came Wakley at the end of that time, *peint par lui-même*—a full length in all its deformity—a report of W.'s

speech, occupying eleven or twelve closely-printed octavo pages of his own dingy hebdomadal. Such a pack of trash the press has seldom been burdened with; yet, trash though it was, we determined to look it through, and see how the substance—if substance it might be called—should be decked out with verbiage, and embellished, in the usual way, with ornaments of fiction. Our search was not without its reward. We lighted on so many beauties as we went along, that we determined to serve up a few of them to our readers. It would be a monstrous pity to let them lie unnoticed in their obscure locality; so here are two or three of them strung together as they met our eye and amused our fancy.

1.

Wakley prays to God that Mr. Lawrence may return to the right way.

"I will read to you their names. They are related with great faithfulness in a little book which I hold in my hand; the work was published about five years ago, and by one of the present council—I mean Mr. Lawrence. (Hear, hear, and loud hisses from many parts of the meeting). I am not at all surprised that marks of disapprobation should be heard—(renewed and increased hissings). Gentlemen, you will understand that these hisses are not directed against me—(cries of 'No, no, no; against Mr. Lawrence—against Mr. Lawrence,')—they are directed against the author of this book—(hear, hear, and cries of 'Certainly they are,')—and I pray to God he may shew in a very short time that he does not deserve them!"

2.

Wakley dramatises Sir Astley Cooper, to the great delight of the company.

"Gentlemen, hear a statement once made by Sir Astley Cooper. The worthy baronet made it with that good feeling which formerly was always in operation in his mind. He said, 'Why it cannot be supposed that I

entertain a feeling of hostility against the Borough surgeons. Good God! just look at them: there's Travers—he was my apprentice; there's Green—he is my godson; there is Tyrrell—he is my "nevey;" and these are the surgeons of St. Thomas's Hospital. Now go over to Guy's: there is Key—Good God! is he not my "nevey?" There is Morgan—was he not my apprentice? There is Bransby Cooper—is he not my "nevey?" And there's Callaway—was he not my apprentice?'—(Immense laughter)."

3.

Why should not every man who chooses it adopt the title of Doctor?—Apology for the Doctors Wakley, King, Walter, &c.

"Then, gentlemen, in order to cast aside the absurd distinctions which now exist in the profession as to names (such as Physician, Apothecary, Surgeon, Accoucheur), in this college let all who receive the diploma of the Fellows be denominated *Doctors*—(Loud cheers). For why is a man of pre-eminent surgical knowledge and abilities—why is he to be defeated in his pursuits by a person who may be infinitely his inferior in talent and education, merely because his opponent happen to enjoy the title of Doctor? If he be an apothecary, and qualified to practise his profession, why is he to be crippled by any other men because of his title? Therefore, I say," &c.

4.

The Collegium Wakleyanum is first to be built, and then it shall receive a charter (and why not?)—as well as the London University.

"First give the thing a 'local habitation and a name' before you apply for an act of parliament. Look at the London University, it has no charter, no act of parliament. But it will have—yes, it will have. But I ask, if there had been no University, would any body of men, however numerous or powerful, be enabled to succeed in an application for a charter? The London University will receive a charter; it is working well for the public: is entitling itself to government protection, and will receive it.—(A cry of 'No, it's not working well.')—Be it so; we will not now contend for the well or the ill; we will not now inquire whether it is working well or ill for the public," &c.

This sample may suffice for the present. We did intend to add a few more beauties which we had marked out in

* It is scarcely necessary to remark that these "cries" and other stage directions are the purely gratuitous fictions of Wakley's reporter; or rather, the embellishments added by the president himself, on correcting his own oration: there were hisses, indeed, but they seemed rather to be directed against Wakley than Mr. Lawrence, for any betrayal of the cause.

* This passage Wakley played off with certain imitative shrugs and tones, in the true "Jack Pudding" style; so as to elicit the unqualified applause of the gaping assembly.

Doctor King's oration, illustrative of that "worthy speaker's" blundering ignorance, or designed misrepresentation. We had also some other precious *morceaux* from other orators to extract; but we really cannot afford to lose another line upon this *thing*—this affected *college-founding*—this *humbug*—which, in Wakley's language, elicited in the pot-and-kettle dialogue between him and his *ci-devant* friend Sleigh, is truly characterized by this sentence, (which, by the way, will serve admirably for the motto of the new establishment, to be set up over its portals in letters of lead):—

"*Begotten in dishonour, it must perish in disgrace.*"

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN IN LONDON AND ITS VICINITY.

THE members and friends of this most excellent institution dined together at the Albion Tavern on Saturday last, Sir Henry Halford, the President, taking the chair in the absence of his Royal Highness the Duke of Sussex, the Patron. Several of the most eminent of the profession were present.

The Secretary addressed the meeting at considerable length on the state of the society's affairs. After giving an account of the annual receipts and disbursements, he announced the welcome intelligence of a magnificent legacy of 5000*l.* by the late John Milward, Esq. of Finsbury Square, a gentleman who had formerly been a general practitioner, and who was one of the founders of the society in the year 1788. By this legacy the funds of the society were stated to be increased to the sum of 37,450*l.* A general meeting of all the members will be held at Gray's-Inn Coffee House on the 13th of April, when it will be proposed to increase the annual allowances to the widows and orphans.

The correspondent who furnished us with these particulars, inquires, when will the rival institution, announced in connexion with the new Collegium Wakleyanum Me-

dico-Chirurgo-Apothecarium be enabled to report a fund equal to the above?

LEGAL PRIVILEGES OF SURGEONS AND OF APOTHECARIES.

NOTHING is more strongly calculated to shew the mischievous tendency of the dishonest part of the medical press than the late trial at Maidstone. It is the law of the land that no man, even though he may be a member of the College of Surgeons, can practise as an apothecary—that is, can attend and supply medicines in medical cases, without a license. The question is as to a matter of fact—not of opinion; and it is a most unfair and injurious deception towards the medical public to hold a different doctrine. Thus Mr. Ryan, of Maidstone, pinning his faith to the lubrications of our contemporary, chose to set the Society of Apothecaries at defiance, and to stand the consequences of an action, under the guidance of the sagacious Editor. It is true that this worthy even now says that the verdict "is contrary to law, and must be set aside on a new trial;" but this assurance from such a quarter is poor consolation to his dupe, who meantime finds that his cause is lost, and his pockets are empty. The law is as clear and specific as words can make it: the *verdict cannot be set aside, — nor will there be any new trial*. We advise our readers, whatever may be their opinion as to the expediency of the law, to bear in mind, that so long as it is the law, other Judges will do precisely as Mr. Baron Bayley has done; and that, if gentlemen choose to run their heads against the wall, as Mr. Ryan has done, they will only have themselves to blame. We observe that a feeler is thrown out to ascertain how far a subscription for Mr. Ryan is likely to succeed: we say, *let him who led the defendant into the mischief bear his victim harmless.*

We subjoin a condensed but faithful report of the proceedings.

CAUSE TRIED AT MAIDSTONE.

March 17, 1881,

Before Mr. Baron Bayley and a Special Jury.

THE SOCIETY OF APOTHECARIES V. RYAN.

Mr. Gurney stated, that this was an action brought by the Society of Apothecaries, to recover from the defendant a penalty incurred by him for practising as an apothecary, not being qualified so to do, under the statute of the 55th George III. cap. 194, for better regulating the practice of apothecaries throughout England and Wales, by the 14th section of which "It is enacted, that from and after the 1st of August, 1815, it shall not be lawful for any person (except persons actually in practice as such) to act and practise as an apothecary, unless he shall have been examined by the Court of Examiners of the Society of Apothecaries, as to his skill and ability in the science and practice of medicine, and his fitness and qualification to practise as an apothecary." The learned Counsel then called

Mercy Ann Hancock, who stated, that the defendant, about four months ago, attended her late husband, *Richard Hancock*; that he had water on the chest, and his lungs were affected; that the defendant ordered leeches to be applied, and gave him medicines, and conversed subsequently as to the effect of those medicines. On her cross-examination, she stated that she had not paid the defendant, but expected to pay him the same as any other doctor.

The learned Counsel called other witnesses, who proved that the defendant had attended them, but in some of the cases it appeared that surgical, not medical, attendance was required.

Mr. Platt, for the defendant, contended that the defendant, who was a member of the Royal College of Surgeons of London, was entitled to attend patients and furnish medicines in every case in which surgical treatment was in any way called for by bleeding or otherwise; that he had a right to be paid for his advice, if not for his medicines; and that the defendant, not having been paid for medicines, was not liable to the penalties imposed by the act.

Mr. Baron Bayley addressed the Jury in the following words:—Gentlemen of the Jury, the point I shall ultimately leave for your consideration will be, whether these cases, in which the defendant has acted, are purely surgical cases. If the party has great skill, even if he has the greatest degree of skill, yet if the act of parliament has required that before he shall bring that skill into operation he shall have submitted himself to the consideration of the Apothe-

caries' Company, in order that they may form their judgment as to his skill, you are to try his case exactly the same as if he were a man of the greatest degree of ignorance; because it is not whether he is competent or not—that is a point with which we have nothing to do—the only question for your consideration is, whether he has acted in opposition to the provisions of the act of parliament. This act says, no man shall act as an apothecary without having obtained a certificate of his fitness from the Apothecaries' Company; and before they can properly admit him, they shall ascertain "his skill and ability in the science and practice of medicine," and "his fitness and qualifications to practise as an apothecary." He has satisfied the Surgeons' Company that he is qualified to act as a surgeon, and therefore in surgical cases he is at liberty to act; but because he is a surgeon, he is not entitled to go beyond those limits, and act in cases which are clearly within the privilege of the apothecary, and in the privilege of the apothecary only. Gentlemen, I take it that originally the division between the physician, the surgeon, and the apothecary, was probably this:—The physician pointed out what were the medicines proper to be used, the apothecary mixed up those medicines, and the surgeon was called in in cases of operations that were to be performed. If there was a wound, that was properly a surgical case; if, in the course of the discharge of his duty, the physician found that bleeding was necessary, then the surgeon was called in, not because that was in the bulk of it a surgical case, but because, in a surgical case, a surgical operation was to be performed. Gentlemen, the power of a surgeon is, in a great degree, to be collected from the clause read in the charter, to which I shall be right in directing your attention, that when you see what the charter of the Corporation of Surgeons is, you will see the limits within which the Crown, at the time that charter was granted, meant they should have power to act. It defines their limits, gives them power to act to that extent, and not to go beyond. Now that provides that every freeman of this company "shall use all and singular plaisters, ointments, compositions, medicines, and other medicaments, to and belonging to the art of surgery, which by such so approved and admitted as aforesaid, have been heretofore had or frequented, and which have been by them and their successors, or shall hereafter be esteemed to be fitting, wholesome, and convenient for the better and more speedy recovery of the health of their patients," in cases of surgery, that is to say; and then it explains what are the surgical cases:—"In the curing of wounds, ulcers, fractures, dislocations, tumors, beside and contrary to nature, and of other external infirmities as to them may

seem most expedient, any statute notwithstanding." These are the descriptions of cases to which, by the charter, the surgeon's right extends, and to those cases the surgeon's rights are confined. I will state them to you over again—"wounds (which are external, you know), ulcers, fractures, dislocations, tumors beside and contrary to nature, and other external infirmities." Gentlemen, originally the power of the apothecary was confined, where you had a physician, surgeon, and apothecary, and were defining the limits of the rights of each, to the mixing up of such medicines as the physician should from time to time prescribe: and there is in this apothecaries' act an express provision, that in case of the prescription of any physician—not of a surgeon, but in the case of any physician—if they shall neglect to make up the medicine faithfully according to that prescription, they should be liable to the pecuniary penalty imposed by the act. That is silent as to the prescriptions by surgeons, and probably that was because it might have been the understanding of the legislature at that period of time, that surgeons, in the character of surgeons, were not the proper persons who should prescribe. There being many cases in existence at that period of time, in which the apothecary went beyond the power of compounding medicines on the prescriptions of physicians, and where he was the only medical man called in, he combined within himself the power of physician and apothecary; and as it seems to me, the legislature in the act of parliament required, if any other person took upon himself to act under a combination of those two powers, he was to be considered, under the penal clause of this act of parliament, as acting as an apothecary. The clause in the act which requires that he should be examined "as to his skill and ability in the science and practice of medicine, and his fitness and qualification," it seems to me, contemplates the double character I have mentioned, namely, that of attending patients, and exercising his own skill as to the proper medicine to be exhibited to those patients, and making up the medicine in pursuance of his judgment in that respect; therefore, if in this case you should find that in cases not surgical, and cases within the limits of the established course of practice of apothecaries at the period of time at which the act of parliament was passed, he has been so acting, then he will be liable to the penalties this act of parliament imposes. While this case was proceeding there was some question put, originating from the practice of many eminent surgeons, that may admit of a very ready solution. I shall answer it in two ways. In the first place, prior to the 1st of August, 1815, there was no restraint as to who might act as an apothecary; there was no provision that

persons should have undergone that examination which this act of parliament provides; any person, without any examination, was warranted in practising as an apothecary. This act of parliament applies only to those who should thereafter practise. If they were in the habit of practising as apothecaries on the 1st of August, 1815, they were at liberty to continue so to do; therefore, in the case of Sir Astley Cooper, and in the case of Mr. Cline, and in the case of many eminent surgeons of our day, who have acted in the dispensing of their own medicines, and compounding them subsequent to the 1st of August, 1815, the answer as to them would be this,—that they were only doing that which, prior to the act of parliament, they had been in the habit of doing, if they had been practising in the character of apothecary prior to that period, and were at full liberty to continue so to do notwithstanding this act. That is one answer. Another answer is this,—that unless they were protected by having been in practice prior to the 1st of August, 1815, their practice, when admitted surgeons, would have been illegal within the provision of this act of parliament, provided they acted in medical and not in surgical cases. Gentlemen, I think it would be too limited a construction of this act of parliament to say, that every surgeon, in a case properly surgical, compounding his own medicines, was acting in defiance of this act of parliament. I do not lay it down to you as being law on that subject, but I think, in a case properly surgical, where the surgeon, in his own judgment, thinks a particular medicine will be right, and co-operate with the operation he is about to perform, or which he has performed, I think that he may, without infringing this act of parliament, make up his own medicine.

Mr. Platt.—My Lord, allow me before you leave the record, to call your attention to the 29th section of the same act, "excepting the liberty of the surgeon."

Mr. Baron Bayley.—"That nothing shall extend, or be construed to extend, to lessen, prejudice, or defeat, or in any ways interfere with the rights, authorities, privileges, and immunities, vested in and exercised and enjoyed by either of the two Universities of Oxford and Cambridge, or the Royal College of Physicians, or the Royal College of Surgeons." That is, in their character of a collegiate body. "The Royal College of Surgeons" would mean as to any privilege conferred on the College; but when I look at the charter, the charter tells me what rights an individual member has, and what rights the College has, in respect of the individual members belonging to that body.—[The learned Judge then recapitulated the evidence of Mrs. Hancock, Richard Hancock, Elizabeth Turner, and other witnesses.] I have recapitulated the four cases to which, as it seems to

me, your attention should be particularly directed: there is Hancock with the water on the chest; Elizabeth Turner with an inward complaint, and with her legs swollen; Mrs. Dutnell, whose disease is inflammation of the liver; and Isaac Copping, whose wife has a stoppage. Now, gentlemen, are these medical, or are they surgical cases? If any one of them was a medical case, the defendant has infringed and broken in upon the act of parliament, and is liable to the penalty for having acted in such a case. You will consider whether these are medical or surgical cases. If you are convinced that they are all of them surgical cases, *purely surgical cases*, why then the defendant will be entitled to your verdict; but, on the other hand, unless you are satisfied that each of those cases is properly a surgical case, then I think this defendant has broken the act of parliament, and is liable to the penalty this act of parliament imposes.

A Juror.—It appears, my Lord, he did not do it beneficially for himself, except in the case of the child.

Mr. Baron Bayley.—He has not actually received the money, but each of the parties expected he would.

A Juror.—Does your Lordship think, in not receiving any thing for it, he acted in a legal point of view?

Mr. Baron Bayley.—I think not, if he had gone on not charging to different cases. But where a man is carrying on business for his own profit, and for his own subsistence, and has a shop for the purpose, it seems to me he is practising as an apothecary, though he does not happen to have sent in his bills. One or two of the witnesses said they expected he would send in his bill: another said he had not paid him because, he said, he had not sent in his bill.

Mr. Platt.—My Lord, I submit the expectation of witnesses is hardly evidence against the party.

Mr. Baron Bayley.—I have no doubt, Mr. Platt, but that the expectation of a man that he was to be paid when in the ordinary course of his business is evidence.

Mr. Platt.—Will your Lordship allow me to beg of you to ask the jury whether they believe he gave his medicine, intending to be paid for it?

Mr. Comyn.—There is nothing in the act of Parliament about that.

Mr. Platt.—I can assure your Lordship it is a question between the two branches of the faculty.

Mr. Baron Bayley.—I have no difficulty in saying this, that it is most desirable that it should be most distinctly understood, that a man who has only the qualification of a surgeon ought not to be at liberty to act as an apothecary; because the consequence of that would be, that all those wholesome provisions which this most useful act of Parlia-

ment introduces as checks upon the apothecary would be no checks at all upon the surgeon.

A Juror.—May I be permitted to ask your Lordship if you lay down to us as law that only external injuries belong to surgery? if your Lordship would favour us with your judgment on that, we would bow with the greatest respect to that.

Mr. Baron Bayley.—That is a question of construction on the charter. "Curing of wounds."—Wounds are external, "ulcers, fractures, dislocations, tumors beside and contrary to nature, and other external infirmities."

Mr. Platt.—Your Lordship will allow me to say, ulcers may be internal as well as external.

Mr. Baron Bayley.—I know that they may be, but it is not a surgical case to deal with an internal ulcer.

Mr. Platt.—I know, my Lord, surgeons who treat them every day.

Mr. Baron Bayley.—I think, from the manner in which these words are introduced, "and other external infirmities," it applies to external disease.

The Jury consulted a few minutes, when The Foreman then addressed his Lordship.—My Lord, under the construction of the law which your Lordship has offered to the jury, they feel it their duty to return a verdict for the plaintiff, because there was no external injury in the first case.

Mr. Baron Bayley.—There will be one point on which I wish to have your opinion, by desire of counsel, which is this—whether you think the party expected to be paid for this business?

Mr. Platt.—That is not the question, my Lord, I submit. Whether he was to be paid for his medicine is the question: he had a right to be paid for his advice.

Mr. Baron Bayley.—No, not for his advice; he cannot be paid for his advice. Whether he expected payment will be the point for your consideration. The first witness, who was Mrs. Hancock, says, "I have not paid him: of course I expect to have to pay him the same as any other doctor." And Mrs. Turner said, "I have not paid him for my daughter, because he has sent no bill: of course I expect to have to pay him." You may collect from the testimony of both these witnesses, that he did not hold out to them that he meant to do this gratuitously; and if not gratuitously, you will form your judgment. Then there is another point—how is a man to live unless he is paid for the labour which he performs?

The Foreman.—My Lord, the jury have no doubt in stating they consider he expected to be paid.

Verdict for plaintiff, for one penalty of 20l. on the case of Richard Hancock.

ST. THOMAS'S HOSPITAL.

CLINICAL LECTURE.

DELIVERED BY DR. ELLIOTSON,

March 7, 1831.

Miliary Tubercles of the Lungs and Spleen, with pale fatty Liver, &c.—Porrigo Decalvans—Psoriasis Guttata—Rheumatic Neuralgia.

On Thursday, gentlemen, four patients were admitted—two women and two men; the former with jaundice and chronic bronchitis, and the latter with chronic bronchitis and rheumatism.

Three persons were presented in the course of the week, and one patient died who had been admitted only the week previous. I could get but little account of the case; for she was sinking at the time she was brought to the hospital. Her pulse was exceedingly weak and quick; she was deaf, and her mind very dull, so that I could only learn from her that she had been very ill three weeks. She appeared sinking at the end of an acute disease.

With respect to her head there was this dulness of the mind, and there was the deafness; she said she had not been deaf previously to her illness. On examining the chest, I found sibilous and sonorous rattle in every part of the lungs, showing that she had been and then was labouring under bronchitis. On examining the abdomen, it was very large, especially at the upper part; the superior part of the abdomen was very much distended, and firm, and solid, so as to give no hollow sound upon percussion: at the epigastrium a strong pulsation was felt.

In this state of things there was nothing to be done but to support the strength; evacuations were out of the question, although she still had bronchitis. I was obliged to content myself with putting a very large blister over the front of the chest, and giving her hydrarg. c. creta. I allowed her eggs and strong beef-tea. She appeared at first to rally, but in a few days she again sunk. Considerable tenderness came on over the abdomen, for which I could still only apply a blister, and she gradually died. There was some stiffness in her limbs; on her admission, she said she had some pains in them, particularly the knees, which she could not move—that they had been intensely hot; that she had had dyspnoea and cough; her breathing had been rattling; and that she felt very weak. This was all the account that I could get; and on opening her, very considerable disease was found.

In the first place, the bronchiae were found congested with blood, but the whole of the lungs were in a state of tubercular deposition. There was not a spot in the lungs

which was not filled with minute tubercles; not merely the upper part, where tubercles generally exist, but the lower parts were equally full of them. It is a rare thing to meet with tubercles at the lower part of the lungs unless there are tubercles at the upper part also. Tubercles are first deposited in general at the upper part, and deposited in very great numbers there; and when you see tubercles of the lower part, you see ten times the quantity at the upper, and frequently great excavations also. Here is the upper part, and you perceive it is filled with tubercles; but here is the lower part, equally filled with them likewise. They are quite as numerous in the latter situation as in the former. I will make another section:—you see just the same thing. I will now take the other lung. In the lower part which I now shew you, there is abundant tubercular deposition, just as in the upper. This is altogether a comparatively rare appearance. You observe that in both the lungs at the upper part the tubercles are all distinct; they stand separate from each other—are not aggregated into a mass, as is usually the case in tubercular deposition. I believe that if you look at the tubercles closely, you will find they are all nearly round, and more or less translucent.

On examining the spleen, it was found to be filled precisely with the same deposit from top to bottom. They are really the same sort of tubercles. On making a section, you observe that it appears like so much raspberry-jam. This organ, too, is certainly enlarged. This is a very large spleen. You distinctly see the tubercles through its external coat. Wherever I cut, it is filled with the same tubercles as the lungs.

On examining the liver it was found to be of very great size. Here it is, and a very bad one it is too in its structure. It is white, quite pale—the colour of a very faded leaf. This sort of liver is generally compared by morbid anatomists to the colour of a decayed leaf; it has become of a very pale yellowish hue. It has not been weighed, but I should think it must weigh seven or eight pounds. I will cut into it:—you observe that it is a “lily liver”—“a liver white as milk.” Whether the patient from whom it was taken was very timid or not, according to Shakspeare’s doctrine, I cannot tell. This liver is what is called a *fatty liver*. If you look at it in any part where I have made a section, you observe that it is greasy. It greases the scalpel.

The bile in such cases (of diseased liver) is almost always found of a very pale colour, as you may imagine. I will just show you it. Here it is, very pale and very watery. Here you see the gall-bladder, and even the bile which has collected, and undergone absorption of its more watery portion in this

organ, is thin, and of a bright yellow colour, instead of being of that deep tinge which it is of in health.

This woman, therefore, was labouring under extensive chronic disease, but she had only complained of illness for three weeks, and she was, when admitted, sinking, not from organic disease, but from an acute attack of the chest, and probably of the head. There was a great degree of heaviness about her eyes—she had much the appearance of a person with fever, and it is most likely that she was labouring under a slight degree of continued fever as well as bronchitis. The vessels of the brain itself, and of its membranes, were turgid, and there was a larger quantity of fluid than usual on the surface of the brain.

With respect to the uterine system, I may mention that there was more or less disease there; however that could have nothing to do with the state of her health. Here is the end of one of the fallopian tubes completely grown up together. The fimbriated extremity is not, in fact, a fimbriated extremity—it is all coherent together. The secretion of the fallopian tube had not been able to escape, and you see that the canal has become much distended. It naturally secretes more or less mucus, and the whole tube, you perceive, is enlarged from accumulation of fluid. I will make an incision in the tube; you observe that a quantity of fluid escapes which is not stringy, like mucus—but short, like pus. It is an accumulation of a pinkish puriform fluid. On the other side the extremity is also obstructed, but it is not hanging loose; it is turned round like a French horn, and the fimbriated extremity has grown to the ovary. You notice what a great size it has attained, in consequence of the obstruction and the excessive secretion. Here is the commencement, here is the extremity, and here is the size it has attained. It is completely adherent to the ovary. Here is the ovary and here is the fallopian tube, becoming larger and larger as it is more distant from the uterus, till its ovarian extremity is enormous. If I cut into this, of course a quantity of fluid will escape: you observe that it is of a blackish colour; it is a smooth fluid, and feels in the hand like melted jelly. There is a considerable quantity of it. This is dropsy of the fallopian tube, according to one use of the word dropsy, which is certainly rather improper.

Here is the ovary, which is also in a diseased state. A large number of the vesicles are apparently granulated. The capsules of others are pale, thick, and opaque, and filled with dark contents. The ovary exhibits a very beautiful appearance, from the variety of its colours and the variety of the size of its depositions. The other ovary has a similar appearance, but not to such an extent.

On making a section of the uterus, you

observe that in its cavity a jelly-like substance is effused, which you can pull out to any length. It is exactly like the colour of jelly prepared for the table, and appears quite as clear as the best cooks make it.

Of course this woman must have been barren at the time of her admission; no power could have impregnated her, on account of the obstructed state of the extremities of the fallopian tubes; but with respect to the cause of their obstruction, and the adhesion of one of them down to the ovary, I presume it may be accounted for from the great tendency to disease in the uterine system. Here are the ovaries below exceedingly diseased; the fallopian tubes themselves are thickened; one contains turbid snuff-coloured matter, and the other contains a fluid exceedingly dark—so much so, that the interior of the canal is almost black. Whenever you see in organs such considerable disease as this within and in the parts adjacent, you may expect adhesion without; but it is said that these adhesions occur particularly in naughty women—in women who indulge their passions to a vicious excess, or use their generative organs so as to abuse them. You will find this mentioned by Mr. Langstaff, a very respectable surgeon, residing in New Basinghall Street, who has a most beautiful collection of morbid anatomy. He says that he has observed, in prostitutes; that the extremities of the fallopian tubes are very frequently adherent to the ovaries, or the surrounding parts. It is known that during a certain business, intended by nature to be harmless, the fallopian tubes become erect, and writhe about like worms, and are more or less in a state that may be regarded inflammatory. Now when this state occurs frequently—far oftener than nature ever intended—of course chronic inflammation may be set up, and adhesions produced. I have frequently met with these adhesions in persons of the description to whom I have alluded. What the character of this woman was I do not know; but the disease in the ovaries themselves and the interior of the tubes, are quite sufficient to explain the adhesions, without having recourse to any supposition injurious to her reputation.

With respect, however, to the tubercles which were found in the lungs and in the spleen: you are aware that a tubercle is now generally understood to be a scrofulous deposition and a new formation—a formation of something unnatural in the body, and of a scrofulous character. Tubercles are generally roundish, and of a yellowish-white colour. They are of various sizes, and hard, but they are friable; you may rub them to pieces in your hand;—they are curdy and cheesy. However firm they may be at one period, they at length soften down into a substance which is not homogeneous, but

consists of two parts; the one a sero-purulent fluid and the other flaky—that is to say, a portion remains unsoftened and forms flakes. It is supposed by many that tubercles are originally fluid, and become hard afterwards, and then undergo a process of softening again. This is the opinion of two eminent morbid anatomists, Cruvelhier and Andral. When tubercles soften, pus is secreted, and an attempt is made by nature to let it out, just as when pus occurs after common inflammation. Tubercles increase by juxtaposition; they occur side by side; and at last aggregate together, and form a mass, so that I have seen the whole of one lobe of a lung, and, indeed, in one instance, I saw the whole of the right lung, one tubercular mass. This tubercular deposit is said to consist of muriate of soda, phosphate of soda, and phosphate of lime; and, some authors have added, of the oxide of iron, but the proportions are various in different cases. Some of them become chalky, and in such the proportion of the phosphate of lime is exceedingly great.

Tubercles are found every where, but they are found generally in free cellular membrane, or in the cellular membrane which ramifies in the different component parts of the viscera. They are found, perhaps, in the very air-cells of the lungs, but I will not now stop to consider whether in phthisis they are produced in the air-cells or in the surrounding cellular membrane. They are found in the brain, the liver, the testicles, the lymphatic glands, perhaps in the vascular parietes of the air-cells, and in the interior of the air-cells themselves. They certainly are by far the most frequent in the lungs in adults, and next to that, they are found most frequently in the small intestines. One observer has stated that in three hundred and fifty adults with tubercles in various other parts of the body than the lungs, he found one only whose lungs were free from them. In the lungs they occur so much more frequently than any where else, that, when they are found in other parts of the body, they are almost sure to be found likewise in the lungs, so that Louis has made the deduction I have just stated. They are found next in frequency to the lungs in the small intestines, and they are found very frequently in the mesentery; so frequently that all other parts stand at a very great distance with regard to the frequency of tubercles in them. The intestines and mesenteric glands stand at a certain distance from the lungs in point of liability to this disease, but all other parts stand even at a greater distance from them. They are exceedingly rare in the liver; more rare in the liver than any where else; though on the other hand they are rather rare in the spleen, except in infants. The specimen which I have shewn you to-day is very rare. In infants they are much more common in other parts

of the body than in the lungs. If they be found in other parts of the body in adults the lungs generally have them, but in children it is very common to find them in other parts of the body, while the lungs are free from them. In infants they are more frequent than in adults, and occur in more organs at once, and therefore the specimen I have shewn you to-day is very choice. You saw them in the lungs, the spleen, and I think the ovaries. In infants there is not the same rule of liability to tubercles as in adults. In infants they are more frequent in the spleen, or in the mesenteric glands—the mesenteric ganglia as they are now often called, and also in the bronchial glands—they are even oftener there than in the lungs; whereas in adults they are, as I have already said, by far the most frequent in the lungs. However, in fetuses they are very rare: at about the fourth year they become more frequent, though then they are not numerous. It is said by Lombard, that of those children who die at Paris from the fourth to the fifth year, three-fourths of them either die from the deposition of tubercles, or present tubercles. After that period tubercles become less numerous till puberty, and after puberty they are rarely to be found universally, and are generally confined to the lungs, the intestines, and some parts of the lymphatic system. They are very common from eighteen to forty years of age, but are not then so frequently a source of mortality as from four to five years of age. You know that they are common to brutes; that monkeys generally die of them here, and the same occurrence takes place at Paris. They are found in horses, pigs, sheep, and birds. The parrots which die at Paris are said almost all of them to die of tubercular disease. It is said that tubercles are not noticed in dogs.

I will now speak particularly of tubercles of the lungs. The deposition usually occurs in the lungs in minute grains, which are greyish and semi-transparent. They lie close to each other over a certain space of the substance of the lungs; sometimes they form small groups. They increase in size as well as in number; and, as they increase in this two-fold manner, they coalesce and form masses. They become opaque and yellow at one point of the surface, and the change gradually pervades the whole tubercle. When tubercles continue to increase considerably, they seldom remain distinct, and the masses produced by their aggregation may be very large. Their shape is globular, and they are found in far greater abundance at the upper part of the lungs than lower down.

However, there is a form of tubercle which does not observe all these particulars, and these are called by Laennec the *miliary granulations*. What I have shewn

you to-day is a specimen of the less frequent disease. This variety of tubercle which I have thus had an opportunity of pointing out was first described by Laennec, and an account of its peculiar character was described by him separately. "They are uniform in size." You observe these are uniform in size. "They are transparent." That can only be seen by a better light than we have. "They are disseminated in countless numbers." That was the case here; "the whole extent of one lung being actually filled with them." You observe that these are each distinct, are innumerable, and are disseminated all over the five lobes of the lungs. I believe no two of them are united together. "Sometimes from their vast number, and their proximity to each other, they constitute a solid mass; but when these are cut into, we find the granulations all distinct and separated from each other by cellular substance, which is either quite sound, or at most only slightly injected with serum."

Now there is a difference of opinion among the French morbid anatomists as to the nature of these peculiar productions. Bayle considers them different from ordinary tubercles, and Chomel thinks the same, no less than Andral; but Laennec considers them merely varieties of common scrofulous tubercle. I cannot but consider that Laennec is right. Bayle considers them new cartilaginous formations; but Laennec maintains that they go through the regular process of tubercles; that they become yellow and opaque exactly as common tubercles do. Again, this kind of tubercle often exists in other organs when common tubercles are found in the lungs. They exist in the present case in the spleen, and have precisely the appearance of those tubercles which we see in the spleen of children labouring under undoubted common scrofulous tubercle in the lungs. Bayle found such in the spleen, and regarded them, curiously enough, as tubercles; yet those in the lungs, which he denied to be tubercles, are exactly similar. Their chief peculiarity is this—instead of being collected in masses, and abounding most, and beginning first, at the top of the lungs, they are distinct, and disseminated equally in all points, throughout the lungs. I do not know but that they appear in all respects to be the same as scrofulous tubercles, with this little variety. I have not met with many instances of this form of tubercles, but some persons tell me they meet with it every day. I have not met with it more than six times in my life; and I am often surprised to hear people declare they see in practice every day facts that to me are rare occurrences.

With respect to the appearance of the liver, this fattiness of the organs rarely occurs where the lungs have not tubercular deposit. This is another argument for considering that these granulations are really tubercular,

and only a particular variety. A fatty liver is described as softer than natural:—this is exceedingly soft. It is further described by morbid anatomists as having the colour of a dead leaf:—this has precisely that appearance; of the faintest or palest yellow. It is said that this change occurs throughout the liver, or only in portions:—in this case it has occurred throughout. The liver has all the appearance of fat; it greases the scalpel, and you observe my hands are very greasy. Farther, it is said that in the fatty part it seems as if there were no blood:—that is just the appearance here; you could not conceive that there was any blood here. Whenever I have made a fresh incision, excepting just where I cross a blood-vessel, the structure has no appearance of containing blood. The bile is said to be little more than water and albumen:—here it is excessively thin, and watery, and albuminous; but it is coloured certainly; it has the colour of bile, but is exceedingly pale. This condition of the liver, too, is said, by morbid anatomists, to be nearly always conjoined with phthisis; not that phthisis is necessarily attended by a fatty liver, but where you find a fatty liver you usually find phthisis. This allows me again to make an additional argument for considering that the deposition was scrofulous, which I shewed you in the lungs.

The liver naturally contains fat and cholesteroline; but in diseased livers like this, Vauquelin has found the composition to be 45 parts oil, 36 water, and 19 animal substance. The oil is in so great a quantity as to constitute 45 parts out of 100 in this disease. I believe that the liver is generally larger than it should be in these cases:—here it is immense.

With respect to the cases presented, one was a case of *porrigo decalvans*, which I shewed you on its admission; one was a case of lepra; and one was a case of rheumatism.

Porrigo Decalvans.

The case of *porrigo decalvans** was not improved. The internal symptoms of fullness of the head, drowsiness, and the circumstance of the patient feeling lost from time to time, were all got the better of by low diet and purging, and occasional moderate bleeding; the growth of the hair will require perhaps twelve months. At the time the patient was presented, I was rubbing it with oil. I do not know that oil has any particular merit, but I determined on giving it a trial, and the patient was oiled every day; but as it was not worth while to keep her in the hospital merely to oil her head, I made an out-patient of her.

Lepra.

The case of lepra, or perhaps psoriasis

* Med. Gaz. No. 167, p. 639.

guttata, which is the connecting link between lepra and psoriasis, however, was cured, or nearly so. The treatment consisted in repeated bleedings, from which the man always found very great relief, and the exhibition of liquor arsenicalis. I do not know that the latter was the efficient remedy, and certainly, from what I saw, I am much more disposed to attribute the cure to the bleeding. You know that he had no pain in the head, but that he had lost his memory. This he did not mention the first day, but two days afterwards, having very consistently forgotten that he had lost his memory. He was bled on his admission, and also the following day, to twenty ounces; and these two bleedings restored his recollection. He was once afterwards bled to a pint, in consequence of complaining of considerable itching of the skin. He was kept on low diet from the time of his admission till he went away. He was admitted on the 13th January and dismissed on the 5th March. He took the liquor arsenicalis, in doses of never more than seven drops, three times a-day. He began with two drops, and gradually increased it. The scales had entirely disappeared, but there were still a few red spots in the skin where the eruption had been. This little redness is likely to remain some time, exactly as it does after other cutaneous diseases and burns. I have known it remain two or three years after burns, and then disappear.

Rheumatic Neuralgia.

There was a case presented of rheumatic neuralgia which yielded almost entirely to the carbonate of iron. I should have been happy, had time permitted, to make some observations upon neuralgia, for the purpose of drawing your attention to the diagnosis between rheumatic neuralgia and tic-douloureux. The pain here was seated in the sciatic, and chiefly in the superficial peroneal nerve. It ran down the outside of the leg to the back of the foot. Great pain occurred likewise in the sciatic nerve from the top of the hip downwards, but when it reached the superficial peroneal nerve it was very intense. He took simply the carbonate of iron, and the pain nearly all went away except about the foot, and there it was attended with heat and more or less throbbing. In consequence of this I applied leeches, and, the pain being removed, he was so much better that he would not wait to be thoroughly cured of the throbbing in the toes. When he came in he could not walk about at all, whereas when he went out he walked about with a stick. Had he had a little patience, and stayed a fortnight longer, no doubt he would have been cured*.

I should have mentioned that the female

* He was supplied with iron when he went out, and shewed himself, on the 23d of March, perfectly well, except a little stiffness of two toes.

who died, and whose liver I have shewn you, was addicted to dram-drinking. I am always happy to give you a lecture on morality from morbid anatomy. A patient in the same ward happened to have known her, and tells me that she was a munificent patron of distillers.

LONDON UNIVERSITY.

[We have received a letter from one of Mr. Pattison's pupils, which we hasten to insert; though, from the lateness of the period at which it came to hand, it has put us to considerable inconvenience to do so in the present number. We regret that we cannot deduce from the letter the inferences which the writer seems to have intended that we should: in fact we can regard it in no other light than an indirect confirmation of our statement. The general correctness of our account (derived from a gentleman who was present) is attempted to be invalidated by the denial of minor points. What matters it, for instance, whether the disturbance took place on Tuesday the 15th, or Wednesday the 16th?—whether the subject for dissection was brought in before or after Mr. Pattison entered?—whether the side-door opened twice or only once? We shall grant Mr. Howitt every one of these points, and still, on the face of his own letter, it appears that there was a disturbance amounting to riot in the anatomical class-room, when the Professor made his appearance and was about to commence his lecture; that the Warden and several members of the Council were obliged to interfere, with a view to restore order; that they failed in this attempt, the uproar being greater after their entrance than before, and that the lectures were suspended in consequence. The only circumstance of the slightest moment in which our report seems to have been incorrect, regards Mr. Horner; who, according to our informant, was not listened to, and, according to Mr. Howitt, was heard, but not obeyed. As to the last part of the letter, in which the existence of any preconcerted plan to interrupt the lecture is denied, it is a mere refinement, and is inconsistent with the acknowledgment previously made, that it arose from the "general disgust" excited by the expulsion of some of the pupils; an event with which "a few friends of the parties" had that morning become acquainted*.

With regard to Professor Pattison's fitness or unfitness for the chair he holds, we offer no opinion; but against the violations of all academic decorum which have repeatedly

* We have, for the present at least, decided against publishing the letter from one of Mr. Pattison's pupils, the receipt of which was acknowledged last week. We beg to assure the writer that our motive for this decision is one of a friendly nature towards him and the establishment with which he is connected. We trust he will have the prudence not to compel us to be more explicit.

been displayed at the London University during the present season, we must enter our strongest protest.—*Ed. Gaz.*]

To the Editor of the London Medical Gazette.
SIR,

As one of the pupils alluded to by you in a report of some of the events which have recently occurred at the London University*, I feel that I should not be doing justice, either to myself or fellow-students, were I to permit such a misrepresentation of facts to go forth to the world uncorrected. The circumstances you mention took place on Tuesday, the 15th inst. not Wednesday, 16th, and they happened, not in consequence of any previously organized plan to prevent Professor Pattison from lecturing, but from the general disgust (towards him) excited in the minds of the majority of students, by his having preferred the most groundless charges against three of his pupils, but which charges had led to their expulsion from his lectures†. This fact was not known except to a few friends of the parties until that very morning, a short time previous to Professor Pattison's lecture-hour, which proves that time was not allowed us either to meet or organize ourselves in any way. Your notice goes on to state, that after the first burst of feeling had partly subsided, the "subject for demonstration was brought in, but the dead and living were treated with equal disrespect, and it seemed as if nothing could increase the uproar, till at length a side-door opened, and Mr. Horner, the warden, entered;" that he proceeded to address the pupils, "but it was confusion worse confounded," they refusing to hear him; that the "side-door opening a second time," Lord King and three members of the Council entered, and "that Lord King, laying his hand upon his heart, came forward entreating a hearing," &c. &c. Now, sir, there is no truth in all this: in the first place, the subject was ready prepared upon the table when the Professor made his appearance: in the second place, the side-door opened but once, Lord King, Mr. Horner, and the members of the Council, entering simultaneously. For a moment after their entrance, I grant the uproar was greater than it had been before, but it was caused by Professor Pattison himself, for turning round as they walked in, he remarked, "now, gentlemen, you perhaps will be quiet when some of the Council are present," thinking, I presume, to quiet the students by fear. As to the opposition which you state to have been manifested towards Mr. Horner and Lord King, when they addressed themselves to the students, I deny it altogether, and assert that they were listened to with the greatest attention: the former gentleman from his

uniform kindness, and urbanity of manner shown to the students when they have any communication with him, will, I am convinced, always obtain him a hearing; and Lord King, by his declaration (which was received with the greatest delight and satisfaction) has caused the students to rely on him as their friend, and as one who will act impartially towards both parties. The only opposition evinced was towards Professor P., and it attained such a height that the members of the Council present thought it expedient to suspend his lectures for a week, until the affair was investigated. Immediately afterwards a general meeting of the students was held, to take the matter into consideration. I will only enter into a detail of the proceedings of this meeting as far as they relate to another part of your statement. They elected twenty-four gentlemen to act as a committee, and conduct the affair on their behalf. This committee, after several days' deliberation, thought it would greatly conduce to the success of the cause of the students if every thing was conducted peaceably and orderly; but being aware of the animosity prevailing among the students against Professor P., they determined that one of their number should express this opinion to the class on the following Monday. As I am the one who communicated this wish, I must disclaim both the words and the meaning attached to them, attributed to me, by you. The words I used were to the following effect:—"That the committee considering it most likely to benefit the cause of the students, hoped that every gentleman present would refrain from expressing any signs, either of approbation or disapprobation, towards Professor P., but allow the lecture to proceed without interruption." Now, sir, I really cannot conceive that any such inference as you have drawn can be fairly deduced from the above words, or that from them any one could come to the conclusion that "the previous disturbance and interruption of the lectures had been the result of an organized plan." I cannot but regret that you should have been led to publish such a misstatement, as I am sure, from the well-known character of your journal for truth, it can only have been done for want of proper information. Hoping, therefore, you will give the above explanation as early an insertion as possible,

I remain,
Your obedient servant,

T. HOWITT.

London University,
March 25, 1831.

NOTICES.

The letter on the state of the Medico-Chirurgical Society has been unavoidably postponed.

Westmonasteriensis in our next.

W. WILSON, Printer, 57, Skinner-Street, London.

* Vide *Med. Gaz.* March 26th, 1831.

† I may state they were readmitted this morning, March 28th.

THE LONDON MEDICAL GAZETTE,

BEING A

WEEKLY JOURNAL

OF

Medicine and the Collateral Sciences.

SATURDAY, APRIL 9, 1831.

LECTURES

ON

MEDICAL JURISPRUDENCE,

Delivered in the University of London,

By PROFESSOR AMOS.

ON RAPE, AGE, IDENTITY, AND SURVIVORSHIP.

Recent changes in the Law of Rape—Circumstances to be particularly noted by Medical Men—Sham cases—Age at which children may be admitted to give Evidence—and at which they become punishable for crimes—Instances of mistaken Identity—Alibi—"De commorantibus"—Cases.

GENTLEMEN,—On the last occasion we considered the subject of legitimacy, adverting shortly to the Douglas, Banbury, and Gardner peerages; to the modern use of the writ "*de ventre inspiciendo*;" to the proof of paternity by family likeness, and other circumstances; and to the presumption of illegitimacy arising from the advanced age, or tender age of parents, or from their not having had children for a great number of years. Having, therefore, considered pretty fully the consequences following from sexual intercourse by consent, with regard to the birth of children, I shall this evening enter upon the subject of sexual intercourse committed by violence, and the law of rape.

A great change has taken place in the law of rape within the last two years, owing to a provision in Lord Lansdowne's act. The change consists in this—that, to establish the crime of rape, it is no longer necessary, as it was formerly, to prove emission.

It is sufficient, since Lord Lansdowne's act, to prove penetration: as to which, too, it has been determined that a very slight degree of penetration will complete the crime. I conceive, however, that the rule is not so firmly established but that it would bend to

the weight of medical opinion, if decidedly opposed to it. This, in truth, seems to be one of those instances which are but too frequent in our law, of an endeavour to reduce questions of fact into a science; and thus, not only in rape, but in libel and treason, and other cases, the dicta of the great sages of the bar are quoted for matters, in respect of which, no juryman ought to be dictated to by any judge.

A medical man who is called as a witness in a case of rape, will be expected, of course, to be very particular as to his description of the manner in which the parts of the female have been affected. But he should look farther—as to the general appearances of violence; for example, the presence or absence of bruises on the arms and thighs, the state of the clothes, and the like; for these circumstances are important with reference to the mode in which the prisoner has arrived at the accomplishment of his purpose, whether it were by consent or not. And if the proof of penetration be defective, these circumstances will establish the actual crime of the prisoner upon a charge of an assault with attempt to commit a rape; for it is not uncommon, where the capital charge fails, upon some such ground as I have mentioned, for the judge to direct an indictment to be prepared for an assault with an attempt to commit a rape.

A particular object of the medical man's observation should be, as well the state of the prisoner as of the female to whose assistance he is called; particularly whether either party is infected with gonorrhœa or lues, and, if so, whether both of them are. This is particularly necessary in cases of rapes upon children, which we shall presently consider. And the medical man should be able to speak to the fallacies to which this kind of evidence may be subject, on account of purulent discharges coming naturally from the female, by an ignorant account of which a jury would be very likely to be misled. And I should recommend the medical man, when called in upon such oc-

cations, to be very particular in noting the time. This is often of importance in explaining the state of mind of the female, and the appearances on her person, in which witnesses are apt to differ who have seen her half an hour earlier or later. The circumstance of the time of sending for the medical man, is an important feature in some cases, as explanatory of conduct. And in these matters the time often throws great light upon any alibi set up by the prisoner. In such cases I would recommend you to take an early opportunity of examining your watch by the clock of some church. The difference of clocks is often a very material subject of inquiry in the proof of alibis.

In my first lecture I related an instance of a person of the name of Coleman, who was executed upon the dying declaration of a woman who had been violated; but it was proved afterwards that Coleman was innocent. This might have been owing to a difficulty in identifying the time of the commission of the injury, (for the woman had really sustained the injury of which she complained, but from another individual, who was afterwards discovered,) and the time when the prisoner had been seen in a different place.

Questions have arisen with regard to the physical impossibility of committing a rape, as arising from the circumstance of immature age. Lord Hale says, that an infant under the age of fourteen years is presumed incapable of committing a rape, though he may be convicted as a principal in the second degree—as aiding and assisting.

In the year 1803, a youth of the age of seventeen was convicted of rape on a girl of the age of nine, and was executed. I have known a person of sixty left for execution for a rape.

It does not appear that our courts have been assisted with much medical testimony in these questions; and, as the law stands, it would be difficult to say what would be the effect, if the medical evidence clearly established the perpetration of the act by a person under fourteen, or if a case of precocious puberty (and several such cases, as my colleague will tell you, have occurred) were indisputably proved. There may be some doubt also whether the recent statute, by which it is no longer necessary to prove emission, may not have the effect of drawing into the penal net more juvenile offenders than before, and whether an eunuch may not now be guilty of a rape.

To proceed, however, with circumstances of ordinary occurrence—the point, in ninety-nine cases out of one hundred of rape, is the question of consent.

The legislature has interfered in two cases, to render the connexion with female children criminal, notwithstanding their consent may be proved; and I understand that there is a case to be tried on the next Nor-

thern circuit, coming within the provisions of the act, where there is no doubt, not only of the consent, but also of solicitation on the part of the female child. It is a capital offence to have connexion with a female child under ten, and a misdemeanor to have connexion with a female child between ten and twelve.

But when we come to charges of rape instituted by grown-up females, they are some of the most difficult which perplex the decisions of juries. In some instances the hope of money induces the charge to be preferred; in more, it is the hope of preserving character, where the parties have been surprised; and in many instances that have come before courts of justice, women have given such encouragement up to the very point of sexual intercourse, that their stopping short at that point, after inflaming the passions to the utmost, can hardly be considered as rendering that a capital offence against their persons, to which they have given the strongest incentives and provocation.

Probably there is almost always some struggle and resistance in the female mind, when virtue is about to depart from it for ever; and this will illustrate the defence of a sailor tried for rape at the Old Bailey, but acquitted; that he “never, for the life of him, could find the difference, when the women consented, and when they did not.”

A real rape is no doubt one of the most atrocious offences which can be perpetrated in society; and when it is proved, and there is no pretence of any suggestion of concert, perhaps the judges are right in punishing it inexorably with death, whatever the ages or whatever the circumstances of the parties.

But for one real rape that is met with at the assizes, a dozen or more sham ones are preferred. I remember a case tried at Leicester, where the female proved in her examination-in-chief a complete rape, under very aggravated circumstances. She charged the offence on a bailiff, who was staying in her father's house, keeping in custody her father's goods, which he had seized in execution, using the iron arm of the law to obtrude himself into the abode of a family suffering under unmerited affliction, and availing himself of the opportunity thus afforded, to visit them with an infinitely more severe injury and disgrace than they had sustained from the unkind hand of fortune. Upon her cross-examination, however, the daughter proved the rape to have been committed early in the night; and that her father and mother slept in the next room. She was asked if she screamed. “No.”—“Why not?” “For fear of waking my mother.”—“Why not waken your mother?” “I knew she had had a very bad night the night before.”—“Did you awaken your mother after the man left you?” “No.”—“Why not?” “I knew my poor mother

wanted sleep, from the bad night she had had the night before, and so it would have been very wrong to have awakened her."

Another case I remember being tried at Derby. A clear case of rape had been proved upon the examination-in-chief. In cross-examination the witness was asked as to the time during which the transaction lasted. Now a woman may frequently lay herself open to contradiction, by her statement of the time during which she relates the occurrence was happening. But an experienced judge will tell a jury, that persons under agitating circumstances form, often, a most erroneous estimate of time; and that it is far from being a sufficient ground to disbelieve a witness's story, that the notions she has formed of time, during a period in which she was under great alarm, prove to be incorrect. In this case, however, at Derby, the woman spoke with great particularity as to the time. It was ten minutes. "Are you sure?" "Positive."—"How do you know?" The witness hesitated. "How do you know?" "I counted."—"How did you count?" "1, 2, 3, 4."—"Did you count 60 ten times over?" "Yes; I did."

Questions have occurred in the English courts as to whether a man, personating a husband, and by this deceit having sexual intercourse with the wife, was guilty of the capital offence of rape. There have been several cases of this description. I remember being present at the trial of one case of this kind myself, and was satisfied that there was no connivance on the part of the woman.

In the reign of Charles I., Lord Castlehaven was executed for being accessory to a rape upon his own wife. I will read you Lady Castlehaven's examination. (Here Mr. Amos read some passages from 3. State Trials, 411.)

It was the opinion of several of our ancient lawyers, that if a woman, at the time of connexion with a man, did conceive with child, it could not be a rape. The present opinion of the profession of the law seems to be decidedly adverse to this doctrine.

As my course is this year a very short one, I cannot afford time for a further disquisition upon rape. But I shall only, before I conclude, advise the medical practitioner, when called in to a case of rape, to watch particularly the demeanor and state of mind of the party alleged to have been injured; in examining the person of the party injured, not to confine the observation to one particular part of the body, but to notice whether there are any marks of violence on the arms, neck, thighs, or other parts of the person; and to observe the state of the clothes, as to whether they are soiled, bloody, or torn. The state of the prisoner is also often equally important with the state of the party injured; especially in the case of rapes upon infants. These are very com-

mon, owing to a notion prevalent among the lowest orders of society, that connexion with a child is a cure for certain loathsome diseases: in such cases, therefore, it may be of importance to see whether both parties are infected with gonorrhoea or syphilis, or one only. The medical man should be able to speak to the facts relating to the propagation of various diseases by means of sexual intercourse; and to the fallacies by which courts are sometimes deceived in this respect, owing to purulent discharges from the female. In these cases of rapes upon infants, the difficulty frequently turns upon a point of identity, the child having never seen the man before the injury committed on her, and being sometimes at first deceived when she sees him in court, in consequence of his change of dress. In questions of identity, it is obvious that the state of the prisoner's person on his apprehension is a very important circumstance, and a medical man should be particular, when he is called in on such occasions, to note the time. And this for various reasons.

It is always a question of the greatest importance in cases of rape, whether the female made the earliest possible complaint, at least the earliest possible complaint to one of her own sex, or a person to whom it would be natural she should make a complaint. The time is also of importance, as explaining the absence of *indicia* of violence, which have been spoken to by other witnesses, and which might have been perceived by the medical man if he had been called in earlier; the time of calling in the medical man, also, and whether there has been any suspicious delay in this respect, are frequently important features in cases; and the time is often important with a view to throw light upon any alibi set up by the prisoner. I would recommend you to examine your watch soon afterwards with the clock of some church, or at least compare it with some other person's watch or clock, as much has depended, in case of prisoners' alibis, particularly upon a supposed difference in the time of different watches and clocks. In the celebrated case of Abraham Thornton, tried in the year 1819, it was proved that Mary Ashford parted company with two witnesses about twelve. She came to a house to change her dancing dress, when by the clock of that house it wanted twenty minutes to five. This clock was afterwards compared with a watch, which was said to be accurate, and found to be forty-one minutes too fast, which would bring the time to half-past four. A person saw Mary Ashford walking alone to the house, as he said, at half-past three. She staid a quarter of an hour in the house, and was seen by several witnesses walking from the house, as they said, at about half-past four. Thornton was seen by several persons walking homeward at twenty minutes

to five. These persons took their time from a clock which corresponded with a Birmingham church-clock. Now the distance from the house where Mary Ashford changed her dress to the pit, in which her body was subsequently found, and from the pit by the footsteps to where Thornton was seen, was three miles, four furlongs, thirty-eight yards, though there might have been a shorter way across hedge and ditch—shorter in distance—but the witnesses thought it would probably take longer to traverse; so that if the clocks were correct, and Thornton was guilty, a space of three miles and a half must have been traversed, or the hedge and ditch journey performed, and the dodging, violation, and murder, have taken place all in ten minutes. But this part of the case is open, perhaps, to some degree of uncertainty, as it does not appear that any of the clocks or watches by which the point of time of half-past four was fixed were ever examined with the clock which fixed the point of time at twenty minutes to five. Thornton was also seen at times corresponding with twenty minutes to five, according to two clocks, when further on his way home, but the two sets of clocks were never brought into comparison; and less than an hour of additional time allowed would have put an end to the alibi.

I find myself obliged to omit the mention of many other medico-legal topics connected with the subject of rape, as it is now time that I should advert, in pursuance of the outline in the syllabus, to the subject of age.

Rules of law were formerly laid down that a witness could not be admitted under the age of fourteen; then ten and nine were fixed upon. But these rules have yielded to the more enlightened experience of modern times, and founded principally on the progress of education of young children. Accordingly, an infant of five years has been examined as a witness, and there is no fixed period by our law: it depends on the judge being satisfied that the child understands the obligation of an oath. The usual questions are, "what becomes of good people when they die?" "What becomes of people who tell lies?" In several instances, particularly where the clergy are not resident, I have known children of seven or eight, or more, not able to answer such questions. I have known more than one instance where a child has been asked, "where do good people go to when they die?" The child has answered, to the church-yard;" and all the judge could do, could not get the child to carry good people any further. In some cases a judge will put off a trial till another assizes, that a child, upon whom a rape has been committed, may be instructed in the nature of an oath; but this cannot be done after the jury are sworn.

The English law, which is a medley of

various systems—the feudal law, the civil law, the old Saxon law, the canon law, and other laws—prescribes a variety of ages of legal competency for different purposes. Thus the power of making a will of land, and of personal property, is fixed at different ages: one kind of guardianship ends at one age, another at another age; a person may be an executor at 17, a different age from any of the former periods. But I shall not have time this evening to speak of more than the age at which a person becomes punishable for the commission of crimes*.

It appears that an infant between eight and nine has been executed for arson; an infant of nine has been condemned for murder, where he concealed the body and the blood; a boy of ten was actually hanged for murder; a girl of thirteen has been burnt for killing her mistress. The latest case of the conviction of a person of a very tender age for a capital offence occurred in 1748†.

It seems to be generally agreed by writers on criminal law, that an infant under seven years of age cannot be guilty of felony, though there is an instance on record of a pardon to an infant under that age.

Having taken this slight and transient view of medico-legal questions concerning age, I find that I must take an equally rapid and superficial sketch of the subject of identity. Instances have occurred of the most astonishing likenesses sometimes existing between persons wholly unconnected by blood. Some years ago, a Mr. Frank Douglas, a well known man of fashion, was committed for a highway robbery on the positive oath of the party plundered, and very narrowly escaped conviction: on the apprehension, however, of the notorious highwayman, Page, the mystery was explained, the personal resemblance being so great as to deceive all ordinary observation. I might detain you a great part of the evening by relating cases of mistaken personal identity which have occurred in the English courts, in several of which the mistake has not been found out till after the execution of the person wrongly accused; and the foreign cases upon the same subject would occupy a lecture of themselves. But considering the limits of my time, I shall content myself with relating a case which passed under my own observation. The circumstance occurred at Warwick, this time year. A man was indicted for burglary, accompanied with great violence and cruelty, and the prisoner's person was identified by the woman whose house was robbed, and who described particularly the clothes he had on. Being told that the prisoner's life depended on the evidence she was giving as to his identity, the witness turned round towards the box, and

* For the latest case illustrative of this subject, see 4. Car. and Payne, 286.
† 1 Russell, 3 ad fin.

having surveyed the prisoner very deliberately for some minutes, said "that is the man." On this one of the principal officers of the Birmingham police said, that he thought she was mistaken, and that she had been deceived by the appearance of another prisoner, who had had sentence of death passed on him the day before for another burglary, very like this in its circumstances, and that he was led to think so, as well from the strong resemblance between the two persons as from the circumstance that the dress the woman described was precisely the dress of the other man; whereas the prisoner, who was a bad character, and had been for some time under the surveillance of the police, never wore such a dress. The other man was then produced in court, and the likeness appearing very remarkable, the jury acquitted the prisoner; though at one period of the trial, nobody in court thought that there was the slightest chance of the prisoner escaping being executed,

On the likeness of features, I might mention a case which occurred in Lincolnshire, where a person of fortune had come up from London to Grantham, and committed an unnatural offence with a linen-draper's apprentice; and the boy being detected in some other cases, turned king's evidence. But the London gentleman's name or residence were not known: he had presented the youth, however, with his picture, and a police officer, after watching in London a month or more, at length discovered him by the picture: his name was Arden. I remember seeing him tried. He was executed for the offence.

The time will only allow me barely to allude to cases of controverted identity which are memorable in English history, such as that of Perkin Warbeck, in the reign of Henry VII. concerning whom the author of the *Historic Doubts* has raised so many ingenious arguments to shew that he was, in fact, one of the princes alleged by the Lancastrian historians to have been smothered by Richard III. in the Tower. But amongst a multitude of interesting cases occurring in courts of justice, I may mention that of Elizabeth Canning, where thirty-six witnesses spoke to the identity of a gipsy-woman of the name of Squires, and traced her all the way from Dorsetshire to London; whilst twenty-seven spoke to seeing her nearly every day during the same time in the immediate neighbourhood of Enfield, ten miles from London; and yet she was so remarkable a woman, that it was said of her at the time, that the Almighty had not created her likeness. This case we shall have again to advert to in the course of the lectures. It was a case in which Elizabeth Canning charged Squires with confining her in a house at Enfield, and robbing her; and she deposed that she had subsisted in that house for twenty-

nine days on a quartern-loaf and a pitcher of water. There was no medical evidence as to the possibility of this point. The case is still one of mystery, as it never transpired where Elizabeth Canning was during the twenty-nine days, if she was not at Enfield; and when she came home, after being absent during that time, and almost famished to death, she described the room in which she had been confined, though it did not appear that she had ever been near the house, or near the street before.

Courts of justice are often imposed upon by alibis, where the witnesses for the alibi meet on a fixed day and hour, and agree to take particular notice of all the facts which then transpire; and thus they swear that the prisoner was along with them. For example: A. was robbed at twelve o'clock on Saturday; a party agree to meet next Saturday, at twelve, and they note every thing which passes, and then swear that the prisoner was one of the party. In such a case it is vain to order all the prisoners out of court, as is usually done, when an alibi is in proof; the more you examine as to every trivial incident, the more the witnesses correspond. A year or two ago a gentleman in Nottinghamshire (I think his name was Thornton) was robbed, and swore positively to the prisoner; but nevertheless the completest alibi was proved. The witnesses, examined separately, all spoke to the same minute circumstances transpiring whilst the prisoner was in their company on the day and hour of the robbery; and in particular that a church bell for funerals was tolling, which, in fact, tolled almost every day at that particular hour, when the robbery happened. The prisoner was acquitted. A year after this, Mr. Thornton seeing the prisoner in a little shop, went to him, and gave him his word, that as now all danger was over, if he would tell him the truth no injury should happen to him, but the contrary. The man said, "I did rob you; the alibi was concerted; I knew it was false, and when the jury turned round to consider the verdict, I felt a shuddering within me unlike any thing I had ever before felt or believed I could feel. The consequence was, that I vowed to get my bread in a different way for the future; and with this purpose have got into this little shop."

In several cases of alibi, it is a strong fact against that plea, that when the prisoner has been taken up, the alibi witnesses have not gone before the magistrate to exculpate their friend or relative.

I remember one witness saying he knew the prisoner was in bed by his coughing; and Lord Wynford charitably suggested that this was so far from being proof of an alibi that it raised the probability that the prisoner had been out of the house, and that the night-air had made him cough.

I must hasten to say a few words upon the subject of *survivorship*, which, like the subjects of age and identity, might well deserve a lecture for itself.

It is a doctrine admitted in courts of law, that if a party has been absent for seven years beyond seas, and not heard of during all that time, he shall be presumed to be dead. This doctrine has been received in analogy to the statute of James, of Bigamy, which exempts from the penalties of bigamy persons whose husbands or wives have been absent for seven years. The presumption of death may arise within a shorter period, under circumstances; as where a person sailed for the West Indies two or three years before a trial, and it was proved that the ship had not been heard of, this was deemed sufficient presumptive evidence of that person's death.

Among the more interesting cases of survivorship are those where several persons meet their deaths by the same calamity, and it becomes material, with reference to the rights of their surviving relatives, to determine which of them died first. Thus, when several persons are killed by the falling of the same building, an idea of survivorship may sometimes be deduced from an examination of the bodies, and of the relative situations in which they are found;—and when two persons have been drowned, besides the presumptions arising from the greater buoyancy of one body than the other, or from the knowledge that the one person was a swimmer and the other not, it has been thought by some medical writers that it may be proved by dissection whether death has supervened earlier in the one than in the other instance. Thus too, in the interesting account which has been published of the sufferings of the Englishmen confined in the black-hole of Calcutta, there are many curious facts relative to survivorship: but the points I have just enumerated fall more particularly within the province of my colleague. I shall merely add, that in some of these cases of survivorship, especially where the bodies are not found, courts of justice have laid down several rules of law arising from the presumptions afforded by the age and sex of the parties. This is a considerable branch of the civil law, and is entitled "*de commorientibus*."

Two brothers, nearly of the same age, were lost the other day in the same vessel, in the Mediterranean. I have not been able to learn their respective ages, but the elder was in bad health; they had each left a considerable portion of their property to the other; and now a question arises between the wives and children of the two brothers which of the two survived.

One of the several remarkable cases on the subject in our books, is General Stanwix's case.

"Gen. Stanwix, accompanied by his only child, a daughter by his first marriage, and by his second wife, set sail for Ireland; the vessel was lost, and not a single person escaped. If Gen. Stanwix had died a widower, and without issue living at the time of his death, that is to say, if his wife and daughter died before him, though but an instant, his nephew became his representative, and entitled to his personal estate; if the daughter was the survivor, then her personal representative (an uncle) was entitled; and on these claims the principal litigation took place, for though it is evident that the second wife also might have a separate next of kin, and her representative bring forward a distinct claim, the circumstance is not noticed by Fearn (Poeth. Ws. p. 39.) 'the court, finding the arguments on all sides equally solid and ingenious, waived giving any decision, and advised a compromise, to which the several claimants agreed.'"

The provisions of the code Napoleon are to this effect:—

In "Art. 721, 722, it is laid down that, of persons under fifteen, the eldest shall be presumed to have survived; above sixty, the youngest; if some were under fifteen and others above sixty, the former are presumed to have survived; of persons between fifteen and sixty, males are presumed to have survived, the ages being equal, or where the difference does not exceed one year."

The following is an example out of the numerous cases which are mentioned, in the writings of foreigners.

"A father and son having perished at the battle of the Dunes, fought near Dunkirk in 1658, and the daughter and sister having at noon, on the very same day and hour, taken the vows in a nunnery, whereby she became dead in law, a question arose as to survivorship among these three persons, when it was decided that the nun died first, since her death, being voluntary, was consummated in a moment; whereas that of the father and son, being violent, was probably not immediate. Between the father and son there did not appear to be any data for a just conclusion, and it was therefore decreed, according to the established rule above stated, that the son had survived the father."

I find this case in an old book of English reports. The title of a woman to recover dower was, the father and son were joint-tenants to them and the heirs of the son; and they were both hanged in one cart; but because the son, as deposed by witnesses, survived, which appeared by the shaking of his legs, the son's wife thereupon demanded dower, and the matter was found for her. And cases sometimes occur in our courts of justice which depend, not on the presumption of survivorship of two individuals, but on the particular moment of the death of one individual. I will exemplify this by a case

which occurred at Warwick in the year 1805.

"At the Lent assizes held at Warwick, in the year 1805, a cause was tried, in which a gentleman, who was insolvent, left his own house with the intention, as it was presumed from his preceding conduct and conversation, of destroying himself. Five weeks and four days after that period, his body was found floating down a river. The face was disfigured by putrefaction, and the hair separated from the scalp by the slightest pull; but the other parts of the body were firm and white, without any putrefactive appearance. The clothes were unaltered, but the linen was exceedingly rotten. On examining the body it was found that several parts of it were converted into *adiposins*. A commission of bankruptcy having been taken out against the deceased a few days after he had left his home, it became a question of great importance to the interests of his family, to ascertain whether he was living at that period. From the changes which the body had sustained, it was presumed that he had drowned himself the day he left home; and to corroborate this presumption, the evidence of Dr., now Sir George, Gibbs, of Bath, was required, as he had lately been engaged in experiments upon this subject. He stated on the trial, that he had procured a small quantity of this fatty substance by immersing the muscular parts of animals in water for a month, but that it required five or six weeks to produce it in any quantity. Upon this evidence the jury were of opinion that the deceased was not *alive* at the time the commission was taken out, and the bankruptcy was accordingly superseded."

I wrote to Warwick to obtain the brief in this case before the lecture; and though I have not succeeded, I hope I shall be able to procure it at the assizes.

With this case I shall conclude my lectures previous to the spring circuit.

ON FEVER.

To the Editor of the London Medical Gazette.

Cheltenham, 2d April, 1881.

SIR,

I beg to hand you the accompanying practical observations on fever, which, if you think worthy of being inserted in your valuable periodical, I shall have pleasure in sending you a continuation of them, comprehending the treatment.

I am, sir,

Your obedient servant,

JAMES HOLBROOK, M.D

Observations on Typhus.

Opinions are divided as to the nature

and cause of fever: some consider it to depend on inflammation, and others that it is a general disease; some refer the cause to contagion or infection; while others, again, attribute it to a peculiar state of atmosphere, assisted by certain predispositions generated in the system, by poor living, fatigue, exposure to cold and damp, want of cleanliness, living in confined, unventilated situations, &c. But whatever may be the predisposing causes, the exciting cause depends on a peculiar infectious principle existing in the atmosphere, emanating from human effluvia, or other sources, which it is not intended here to discuss, the object being confined to the theory of its operation on the body in producing the disease, derived from practical observation; and of a mode of treatment founded thereon, the success of which has been proved by experience.

It may, however, be proper to observe here, that the extensive spreading of the infection of fever is considered to require the co-operative influence of an epidemic state of the atmosphere, as is seen during the presence of the contagious and infectious poison of small-pox, as its ravages are greatly modified by the state of atmosphere, evinced by its sudden invasion; and cessation, even while sources of the infectious poison remains.

Of the Theory.—The constitution rendered susceptible by any of the above-mentioned, or other predisposing causes capable of reducing the system from the standard of health, (except such as depend on morbid actions still existing, which would, perhaps, have a contrary effect,) being exposed to the infectious cause of fever, an impression is made on the extremities of the nerves, distributed to the different surfaces of the body; and through which medium acting on the brain and general nervous system, subsequently extends its influence to the secretory, excretory, and circulating functions.

That the nervous system is really first affected, as being the medium of all sensation and action, appears evident; and that the next in succession should be the capillary and secreting vessels, must be inferred from the circumstance of all actions commencing in those extremities, and afterwards being communicated by re-action to the heart and larger vessels.

The impressions thus made, and the

actions set up, being of a morbid and of a specific character, the excretions, and some of the secretions, partake of the same properties, and have the power of infecting the atmosphere in like manner with the original cause, an appetite existing in those vessels to secrete the same morbid matter, as that which has been applied to them; and therefore is more particularly confined to the surfaces which first received the impression of the infectious matter; as is to a certain extent the case with diseases communicated by inoculation; otherwise it would be difficult to account for diseases being mitigated by that means, *e. g.* the small-pox, and the fact of the primary sores only in syphilis being capable of communicating the disease. The sympathetic fevers also arising in surgical diseases, may in part likewise owe their modification to this source, of the locality of the primary affection.

From the foregoing reasoning, the sources of action and of impressions are considered to be in the extremities of the nerves and capillaries, and the power in the brain, spinal cord, ganglionic system, the heart, and larger vessels; and the phenomena of fever to consist, first in the shock produced on the nervous system, afterwards a suspension of the secretory functions, and consequent congestive state, both general and local; to which succeeds sensation and re-action, in degrees proportionate to the powers of the system, and of the exciting and predisposing causes.

Local affections, moreover, take place in different organs, commensurate with the powers possessed by them respectively, to resist and support the morbid effects of the disturbed actions, and the determinations given to particular organs, by causes acting in conjunction with the poison, at the time of its reception into the system, as that of cold, and moisture, and other causes of common inflammatory affections of the viscera.

These local affections may be considered as states super-added to the fever, and may have an influence on, and be influenced by it; and it becomes a question whether they prolong or shorten the primary disease: but the former appears probable, by interrupting its progress and in some degree modifying its action; while the local

affections are rendered less controllable by the deviation from healthy action introduced into the system by the fever, and the altered state of the blood from the absorption of unhealthy matter, of which every organ partakes.

In the more advanced stages, the primary, general, and local actions subside, and are replaced by congestions and irritable reactions arising from exhausted power. Other local affections are also produced by the irritation of unhealthy secretions, now become more vitiated, and of excretory matter on the already morbidly weakened state of the mucous membrane of the alimentary canal, and sometimes of urine confined in the bladder, from the loss of tone in that organ having deprived it of its power of expulsion, and there producing local inflammation, and undergoing chemical changes, from which the general system suffers, and the functions of the brain and nervous system, frequently to the extent of coma, by the absorption of the ammoniacal urine, and by the sympathy with the local irritation.

The irritations thus produced in the alimentary canal are often followed by inflammation, and ulcerations in some portions of the mucous membrane, particularly about the lower end of the ilium and in the cæcum; and their presence in the former may be explained by the number of glands and mucous follicles which exist in that portion, and from the contents becoming more irritating by being longer retained. From these unhealthy secretions the system suffers still further by the absorption of a considerable proportion into the blood, particularly from the alimentary canal, combined with imperfectly prepared ingesta, by which the blood is rendered unhealthy in quality and dissolved in its crasis, which adds to the general tendency of the system to dissolution. The functional derangements of action, however, appear to be of greater weight in the support of disease than the state of the blood, the quality of which being more under the influence of action than action on it; a healthy state of the blood being incompatible with general functional disorder, but the functional disorder being removed, and healthy action re-established, an improved state of the blood soon follows; as practical observation leads to the conclusion that unhealthy states of the blood are seldom,

or perhaps never, productive of active excitement, but of irritable excitement and general impaired health, as particularly exemplified in sea-scurvy; it being necessary, for the support of the former, that a certain degree of the powers of life should be maintained, which cannot be supplied from blood not possessing proportionably healthy principles, to support an adequate degree of nervous power, by the peculiar influence of which all actions are carried on and all changes in living matter effected.

The brain itself, although the centre of sensation and the seat of nervous power, not being capable of receiving sensation, except as dependent on nerves supplied to it in minute ramifications from remote branches.

The contamination of the atmosphere by these morbid secretions and excretions are not so injurious to the patient as to others; as the action of fever being once set up, the system becomes for the time insusceptible of its further operation, while a negative influence is produced by the deterioration of the atmosphere; but a second specific effect of the infectious matter on the same individual, involves the necessity of a previous cessation of the former operation, and a partial restoration to health, which is the case under circumstances of relapse.

By a proper application of the reasonings which have been now advanced on the operation of the exciting causes of the phenomena described, an explanation will easily be suggested for any other that may arise in the progress of fever.

[To be continued.]

PORRIGO SENILIS.

To the Editor of the London Medical Gazette.

Bedford-Street, 25th March, 1831.

SIR,

PERHAPS you may think the following fact worthy a corner in your miscellany. An old gentleman, of 82, had been for many years tortured with porrigo senilis. About six weeks since he was threatened with inflammation of the lungs. It was not considered necessary to bleed him, and the disease yielded to

the administration of tartarized antimony—a quarter of a grain every five hours, and I think he continued it for four or five days. What I wish to draw your attention to is, that his old tormentor, the porrigo, left him, and he has had no symptoms of it since; and as he took nothing but simple purgatives, besides the antimony, there is some reason to think that the latter was instrumental in removing the cutaneous irritation. The extreme obstinacy of this disease, and the torments suffered by many old persons, have induced me to offer you the above fact.

Yours respectfully,

LIONEL BEALE.

STATE OF THE MEDICO-CHIRURGICAL SOCIETY.

To William Lawrence, Esq. F.R.S. &c. &c. President of the Medical and Chirurgical Society.

SIR,

IF the letter which appeared in a late number of the Medical Gazette has in any degree drawn your attention to the present state of the Medical and Chirurgical Society, I trust I may not be employing myself quite uselessly if I now endeavour to direct it to the means of inspiring the society with renewed or with additional activity.

Various suggestions, of all of which the intention appears to be the same, have been the subject of conversation “out of doors;” and some, it would seem, have penetrated the privacy and occupied the attention of the council.

The removal of the society to a livelier locality is one suggestion; and the council are evidently of opinion that this change would be highly beneficial. The members of the society have been called upon to state their views on this measure, and it is certainly not improbable that it would increase the number of members, and improve the attendance at the meetings. The answers of the members to the late circular letter will, however, furnish the best ground for judging of the propriety of making such an alteration, which should on no account be resolved upon, excepting at the desire of a large majority of the members of the society. They became members on certain existing conditions,

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To the Editor of the London Medical Gazette.

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PERHAPS you may think the following fact worthy a corner in your miscellany. An old gentleman, of 82, had been for many years tortured with porrigo senilis. About six weeks since he was threatened with inflammation of the lungs. It was not considered necessary to bleed him, and the disease yielded to

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The removal of the society to a livelier locality is one suggestion; and the council are evidently of opinion that this change would be highly beneficial. The members of the society have been called upon to state their views on this measure, and it is certainly not improbable that it would increase the number of members, and improve the attendance at the meetings. The answers of the members to the late circular letter will, however, furnish the best ground for judging of the propriety of making such an alteration, which should on no account be resolved upon, excepting at the desire of a large majority of the members of the society. They became members on certain existing conditions,

which ought not to be touched without good reason, or, if possible, without their unanimous consent. Of the financial considerations involved in this proposition I shall say nothing, as they may very safely be trusted to the vigilance of the treasurers.

The present income of the society is about five hundred pounds per annum; and the annual expenses are about six hundred pounds. Of these six hundred pounds, the sum devoted to books and printing is not more than one hundred and thirty. There is but one salary paid, of one hundred pounds. But the rent and taxes amount to two hundred pounds; and the sundries and collector's poundage to about one hundred and fifty. Each annual subscriber pays three guineas. The establishment is, therefore, an expensive one, and the expense has, I suppose, an object more important than the establishment of a book society, which requires no very cumbrous machinery. The very small sum devoted to the expense of printing and books together makes it improbable that the publication of the Transactions forms an item the last year's account.

One chief design of the Medical and Chirurgical Society is then, I presume, to encourage the free communication of knowledge among medical men;—of such knowledge as has either been acquired by those who have not time, amidst their daily professional avocations, for minute and laborious researches, or by those who have been able to pursue long and intricate investigations.

This object, so excellent and useful in itself, might perhaps be promoted, and the general interests of the society advanced, if some notice could generally be given, in the weekly medical publications, of the nature of the papers to be read, or the communications to be made, at the ensuing or approaching meeting. By such a notice, several of the members, who are too busily occupied to prepare elaborate papers, and too weary of everlasting repetition to have an indiscriminate passion for listening to those made by others, would be reminded of cases, and facts, and incidental reflections, bearing on the subjects which were to occupy the attention of the society, and the intellectual wealth of the individual members would be much more freely con-

tributed to the general stock. Even the minute details of a case, which so commonly weary the audience as much as they delight the narrator, would then become the source of various and instructive observation; and the accidental light elicited by liberal discussion, would sometimes direct the thoughtful hearer towards those general principles by which thought is best rewarded.

The notice thus proposed to be given would not be exposed to the objections which I acknowledge to exist against the publication of the observations made at the meetings. Whatever may be the benefits of publicity, they do not extend to medical conversation; and the most valuable verbal medical communications must always be conversational. Truths of the most precious kind, and the most prized thoughts, have been said "often to fall into the mind by accident;" and it has doubtless often happened that the mind of the medical inquirer has been led into productive trains of investigation by the casual observations, made in scientific societies, of men of talent, experience, and reflection. Thus does the free and unreserved communication of thought become not only one of the greatest, but one of the most improving of pleasures. But no man at all careful of his reputation, and at all accustomed to the cavils of pertness and dullness, wishes to have his undressed and casual observations—his "table-talk"—printed and published; and if every hasty remark made in a society is to be circulated over the whole world on the Saturday following, those whose remarks, albeit sometimes unconsidered, and, as it were, in *dishabille*, would be most valuable,—those of whom it may almost be said that even their *idle* thoughts have many gems of price in them, would never venture to make any remarks at all. Careless of immediate fame, but not desirous of courting vulgar misapprehension, they would never hazard ingenious fancies for the benefit of others; but would either let them die away unimproved, or keep them for more reflection and for other methods of communication. On the other hand, the hope of appearing "in the debates," and of being brought, as it is called in the trade, "before the profession," is seen to cause societies, of which the discussions are published, to become the haunts of established *boreds*, who de-

claim with loud voices and vehement gesticulation concerning little discoveries, and weak hypotheses, and petty points of practice, as if the fate of empires and of Rome hang on their mighty words. Out of the hearing of the voices of these misguided men, all reasonable persons betake themselves with precipitation; and I should be truly sorry to see the repose of the Medical and Chirurgical Society interrupted by such an affliction. But the notice now suggested would produce none of these inconveniences; and it would, I feel assured, often induce the members so to make their arrangements as to attend the meetings; for they would then know that they should not go so far out of their way to no purpose.

Another suggestion has been, that at the beginning of each session, the members should hold a *conversazione*, and thus endeavour to bring around them many to whom the proceedings of the society would afterwards become an object of more attention. At such meetings, the president might deliver a short address, or the society might, through its secretaries, make some useful communication on a professional subject;—not a pompous puerility, but something new, and true, and useful. I may be permitted to observe, that the great respectability of the society, and the learning and the rank of its members, are such as to make an invitation from them as much esteemed as one from any professional body whatever: and certainly a crowded *conversazione* would be more agreeable than a thinly-attended dinner.

Some of the well-wishers of the society imagine, that it would be more generally agreeable as well as useful to the members, if the reading-rooms were open in an evening; whilst others wish to extend the society into a kind of Club, in which the members might be supplied, at reasonable rates, with tea and coffee. These suggestions are, I suppose, made in contemplation of the removal of the society from Lincoln's-Inn-Fields to the neighbourhood of Charing-Cross; and, perhaps, no very strong objection can be offered to them. They would induce a trifling additional expense for servants; but as the fashionable clubs are rather unseemly places of habitual resort for medical men, the comfort, relaxation, and social

enjoyments of many might be much increased by such a plan.

Should a change of situation be resolved upon, many minor improvements may follow. Among these, I hope it will not be considered quite beneath the attention of the council to devise a new arrangement of the seats in the room in which the meetings are held. As far as my observation has been exercised, the present arrangement is perfectly unique, and quite a discovery in inconvenience. The four members in the front seat, turning their backs upon the whole company, enjoy a kind of tête-à-tête with the president and the secretaries; whilst those behind behold these respectable functionaries afar off, over the backs of the heads of all the members. Besides which, it is to be observed, that whenever more than forty persons are assembled, (barely constituting "a house,") every gentleman entering the room is followed by an extemporaneous bench or a chair, as if his attendance had been entirely unexpected. Surely this ridiculous bustle, (which often disturbs members in their first sleep,) might be obviated.

Lastly, it cannot be concealed, that there are some who are of opinion that allowing the members at large a little more share in the government of the society—making the government, in short, a little more popular—would be attended with good results. Let us inquire into the manner in which the present government is carried on.

At an annual meeting, held in the month of March, half a dozen members of the society straggle into the society's rooms, and put a "house list" of president, vice-presidents, and members of council, into the glass. In this list it generally happens that there are several names unknown to those who vote for them. But to cross them out would be ungracious, and to supply their places with the names of others useless; for the voters have no means of knowing who attends, or who is likely to attend, to the business of the institution. From that time until March in the following year, nothing more is heard of the council. Whether they meet or not, or whether they all attend even once in the year or not, there are no means of finding out; and yet at the end of the year, six or seven members meet again to re-instate some for merits unknown,

and to displace others for reasons quite as obscure. I am far from reflecting upon the gentlemen who compose the council, (for whom, indeed, I have a great respect,) but I maintain that this mode of election is in every point of view objectionable. It exposes the best members to exclusion, and leaves too much room for that kind of management which is the bane of half the societies in London.

The system of governing an association of well-educated men by a council who make no communications to the general body, makes the association, whatever may be its objects, unpopular; and effectually shuts out every useful suggestion, and obstructs every step towards improvement. The members, ignorant of the affairs of the society, become altogether careless concerning them; and suspicions arise from time to time that the council is but a name for the despotism of one or two persons. It is well known that the decisions concerning the reception and publication of papers have been now and then appealed against as partial and unfair. This must happen when no one knows who reads his paper, or even whether it has ever been read at all. Of all persons in this irritable world, authors are the least likely to submit quietly to irresponsible power.

The general answer to any observations on the form of government of the society is, that it resembles that of the Royal Society. Whether that be the case or not, or whether it is a recommendation or not, I do not possess opportunities of determining. But of one thing I am quite convinced, that there is very little analogy between the real objects of the two societies.

It would, I think, be attended with no inconvenience, but on the contrary with much advantage, if all the papers transmitted to the society were accessible to such members as chose to peruse them; and if, after the recommendation of a council or committee, the decision on the reception or publication rested with the members also, and was decided by a ballot.

In fact, all the business of the society, as it is at present constituted, might be carried on by two committees, which should report and make recommendations to the society at the usual meetings in the winter and spring; and might have a provisional power during

the vacations. One committee might be for finance, and another for the reception and publication of papers, and the consideration and recommendation of books to be purchased. But the decision of all matters, both of science and finance, should be left to the whole society. The business of the society would, therefore, in reality, be still conducted by those most interested in its prosperity, whilst the interest felt in its concerns would be incalculably increased. Nor would any alteration be required in the time of attendance at the meetings, except the addition of half an hour; (from half-past eight to nine, or from ten to half-past ten), the first half hour being devoted to the private business, and no more.

The time allotted to the public or scientific business of the meetings is certainly itself inconveniently short. The space of one hour, although sufficient for the communication of a new philosophical fact, or for the brief exposition of a new theory, is much too limited, in relation to the communications generally made to the Medical and Chirurgical Society. The object of the members, unlike that of the fellows and visitors of the Royal Society, is not to have time for paying their respects to persons of rank and consequence, who like to be considered learned and scientific at the expense of very little labour. We meet for information, and partly for the discussion of facts and opinions. The papers are generally long, often occupying nearly two hours, sometimes more, and therefore more than one sitting; and when any paper is, at length, brought to a conclusion, and the minds of all the members who have resolutely kept awake are prepared, either for listening or for saying something worthy of being listened to, the hour has expired, and the society is adjourned. Uncertain, therefore, how a walk to Lincoln's-Inn-Fields will be repaid, members hesitate to go forth in the cold nights of winter until the short hour of meeting has come and gone; and those who do attend are not always very well able to say, as they wend their way home again, for what particular gratification they left their own firesides.

I trust, sir, you will believe, although I have not thought it necessary to affect particular solemnity when making or mentioning these suggestions, that they

arise from no feeling but that of unfeigned respect for the society, and zeal for its continued welfare. When I look at the distinguished names on the list of the society—when I consider the valuable volumes they have given to the public, and the reputation attached to them throughout the civilized world—I feel that it is an honour to belong to the Medical and Chirurgical Society. And if I were not satisfied that the society possesses within itself just claims to the respect generally felt for it, I should not have taken the trouble to say a word to stay its declension into oblivion. It is because I think its meetings may yet be well attended, and its proceedings more animated, and its influence in preserving respectable members of the profession greater, and its promotion of every department of medical science more active, that I feel an interest in striving to prolong its honourable existence, and am concerned by the remotest prospect of its decay.

I should be glad to see the Medical and Chirurgical Society approach more nearly to what the Académie de Médecine is in Paris;—an institution watching closely, but without any views of narrow and sordid monopoly, over the interest of all classes in the profession; affording facilities for the true expression of the opinion of the medical public concerning the changes which time is making necessary; giving protection, both to the profession and to the public, against gross ignorance and quackery; and even sending its commissioners into other countries in search of knowledge, wherever it is to be found!

It would not have done any discredit to the society to have been able, before this time, to receive and lay before the profession a more exact description, than has yet been given, of the epidemic to which the names of cholera and of plague have been given, and which has for many months prevailed, and perhaps yet rages, in Moscow. A section of the society might have been long and usefully employed upon the objects for the promotion of which another institution, the Medico-Botanical Society, has recently been established. Part of the subject of statistics—so singularly neglected in this country, and yet so important, and which has at length attracted the regards of another new society, the Geographical—would have

furnished a profitable field of exertion for another section. There are not wanting many subjects of investigation in the southern countries of Europe, and in North America, and within the tropics, well worthy of the labours of an active corresponding committee; and the opportunities of throwing original illustration over the physical history and physiology of man, arising out of the constant intercourse of England with parts of the earth in which men may yet be seen in all the earliest stages of civilization, which might have been turned to so much advantage if there had ever yet existed a corporation in this country more anxious for the improvement of science than for the preservation of power, might have been improved by a society certainly free from that taint, and only too formal and inactive.

The investigation of the properties of new medicines, now so imperfect, and so much left to chance, might, by means of a zealous, liberal, enlightened medical society, be more speedily, perhaps more honestly, conducted than at present. England is disgraced by the history of the white mustard-seed, and some other less innocent medicines which I could name, the absurdity of which ought to have been exposed before health had been trifled with, and before the public, wearied with a folly half sanctioned by selfish medical advisers, turned, for the thousandth time, to some *new* universal remedy. The true and precise extent of atmospheric influences might, by the aid of an association of active scientific inquirers, be more carefully observed, and made generally known, with general advantage. The dissemination of popular knowledge concerning the causes and means of prevention of contagious fevers, would be no useless undertaking, but as honourable to a society of scientific men as serviceable to the public. The actual value of vaccination is a subject on which the public might also, with great benefit, be yet informed. There are many questions in legal medicine, and some of very great importance, on which a permanent body of men of science might be able to throw considerable light. But it is unnecessary to prolong this detail. Every medical man must see innumerable reasons for wishing that there existed some great medical and surgical association,

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a common centre of all professional knowledge in this kingdom, to which both the people and the government might look for sound information on matters of general, or at least of very considerable, interest to the community; and to which they would not look in vain.

Such a society the Medical and Chirurgical Society ought to be. It already possesses all the elements of such a great institution;—respectability, numbers, learning, science, experience, and much individual zeal. Slightly altered in its form of government, and embracing a wider scope of objects, it would become a national benefit, and a national honour; and when resorted to for information important to the state, would render it intelligently and uprightly, without prejudice, or partiality, or any wretched views of its own particular advantage.

If there are any insurmountable obstacles to such an extensive, or, I might say, to such a noble plan of usefulness, (I am not aware of any such,) yet no one, I think, will say, that the society ought to continue, or even ~~can~~ continue, merely what it is. For want of concentration, or from original defect in its constitution, it is falling into the condition of a lonely memorial of a period less busy and less enlightened. Adhering rigidly to cold and useless forms, it remains stationary, or is becoming silent, whilst other societies, full of youth and strength at least, if not of wisdom, are fast arising around it, and superseding it.

In conclusion, sir, I will merely express a hope that this subject may be thought deserving of your consideration; and that the members of the Society, however much they may differ among themselves concerning the changes required in the management of the society, will make an exertion to enliven and prolong its existence, before it be too late.

I have the honour to remain,

Sir,

Your very obedient servant,

X. Z.

March 26, 1831.

VACCINATION IN HOOPING-COUGH.

To the Editor of the London Medical Gazette.

SIR,

IN reference to the employment of vaccination in hooping-cough, as mentioned in the clinical lecture of Dr. Thomson, in a late No. of the Gazette, I beg leave to make the following observations.

At the very time this lecture appeared, I was myself preparing to send you some account of several cases of hooping-cough in which vaccination proved itself highly useful in stopping the disease. I felt at the time anxious to know whether it had been employed in practice before or not*. Observing the doubt Dr. Thomson entertains of the subject, I feel justified in making publicly known, through your journal, the decided advantages resulting from the practice; and though I agree with the doctor on the improbability of vaccination being delayed, with the risk of small-pox being taken in the interval, in order to keep it in reserve as a remedy for hooping-cough, still, when it has not been done, and the disease makes its appearance, I should consider that vaccination ought to be employed; for, by so doing, you not only relieve your patient from a troublesome complaint, but also secure him against a most disgusting disorder.

I am, sir,

Your most obedient servant,

H. M. M.

Assistant-Surgeon.

26th March, 1831.

MEDICAL SERVICE CLUB.

To the Editor of the London Medical Gazette.

SIR,

A suggestion has been thrown out by your *esteemed* cotemporary in his last number, relative to the formation of a Medical Service Club. This is not a new thing; it has often been spoken of amongst military and naval medical men, and is much wanted. It has fallen, however, into bad hands, and must at once be taken up by persons of a proper character, or it will be altoge-

* We shall still be glad to have the cases alluded to.—ED. GAZ.

ther lost. Let some of the seniors, then, of both services, or of either, call together a sufficient number of officers on full or half-pay, and let some preliminary measures be adopted on the subject: I say on full or half-pay, for although men who have been in the army or navy, and who have retired without stain, may, and ought to be admitted as honorary members, yet the club should be essentially a *service club*—that is, the ordinary members should be all men actually in the service; nor should any man who is not, or who has not been, so employed, be, on *any pretence*, admitted, as no other line so distinct, and so easily adhered to, can be laid down.

One word more, and I have done, at least for the present. There must be no attempt made to convert the thing into an academy. The frugal and select dinner-tables, the evening party, and the quiet intercourse of friends, do not harmonize, and never have done so, with the noise and bustle, and promiscuous assemblage, of a lecture-room.

Let us have a club, select as you please, but a club only, and that upon the most moderate terms consistent with respectability. If this be done, more than half the medical officers in England would probably become candidates for admission immediately; but the measure must not be allowed to sleep.

M. M.

March 30th, 1831.

MEDICO-BOTANICAL SOCIETY,

Tuesday, 26d March, 1831.

GEORGE LEITCH ROUFFELL, VICE-PRES.
IN THE CHAIR.

*History of Opium—Experiments with
Narcotine and with Morphia.*

AFTER the usual preliminary business, and the admission of the Earl of Northesk as a Fellow, the subject commenced at the last meeting, by the Professors of Botany and Chemistry, was resumed by those of toxicology and materia medica—viz. the medico-botanical history of the poppy and opium.

Dr. Clelandinning presented a condensed and very excellent account of opium, considered as a poison; commencing with the symptoms which follow the exhibition of excessive doses of this powerful drug, and then discussing the question whether it acts imme-

diately on the brain and nervous system, or affects the sensorium mediately through the circulation. As the result of the inquiry, Dr. C. seemed inclined to adopt the opinion that the chief action of opium is on the nerves of the vascular system.

The tests for opium were next adverted to, and the value of each canvassed *seriatim*; that of permuriate iron rendering the meconic acid a deep cherry-red being preferred, and the fallacy which might arise from the presence of sulpho-cyanic acid in saliva shewn to be readily detected by the addition of an alkali to the suspected liquor, which will bleach it if the colour be owing to sulpho-cyanic acid, but will deepen the cherry-red tint if it results from opium.

The treatment of poisoning by opium was in conclusion referred to, and Dr. C. (for what reason we did not perceive) seemed to prefer emetics to the stomach-pump, for the evacuation of the drug. Among other ordinary remedial means, he dwelt considerably on the good effects resulting from the directing currents of cold water on the patient's body, which he thought far preferable to mere cold affusions. He also condemned (and we think very properly) the early and indiscriminate use of acids, especially of vinegar, in cases where it is suspected that an over-dose of opium has been taken.

Dr. Whiting then followed with the pharmaceutical section of this important subject, and we regret that our limits will not allow us to give more than the heads of his interesting lecture. Of the three most important proximate principles of opium—viz. narcotine, meconic acid, and morphia. The two first Dr. W. believes to be inert, and the latter, when pure, inactive likewise, on account of its insolubility: hence the importance of exhibiting morphia, and in conjunction with some other acid. When Dr. W. took half a grain of pure morphia, he found no sensible effect ensue; but when a like dose was taken in conjunction with citric acetic or other acids, then the peculiar soporific power was quickly evident, as these acids render the morphia soluble. This led to the inquiry as to the best mode of administering morphia, so as to ensure its solubility; and Dr. W. prefers blending it with oil, in which it is very soluble, which may then be mixed with

bread and administered in the form of pill, or rubbed in as a liniment for external use: the endermic dose of morphia being, according to Dr. W., one grain, while that by the stomach is about half as much.

The various pharmaceutical and other preparations of opium were next critically discussed, but upon these we cannot enter. We shall therefore conclude our report with detailing two or three of the experiments upon which Dr. W. founds his opinion, that the stimulating effects of opium do not depend on narcotine, which is, in the doses in which it is taken as existing in opium, inert; and also his belief that morphia has no effect on the circulation.

Experiments with Narcotine.

A young gentleman, aged about twenty-two, took one grain of narcotine, his pulse being then 83. After he had taken it one hour, the pulse beat 80; after two hours, 70; at the end of four hours, 68. Two other young men repeated the experiment this evening, three hours before the lecture, with similar, or nearly similar results; so that, if the narcotine had any effect at all, it was rather that of depressing than exciting the circulation: but the diminution of the pulse in frequency, might be rather attributable to the quiet state in which the experimentalists remained.

Experiments with Morphia.

1-4th of a grain administered, pulse	61
After a quarter of an hour	65
— half an hour	59
— three-quarters of an hour	70
— one hour	65
— one hour and a quarter ..	66
— one hour and a half	64

Half a grain administered ... pulse	72
After a quarter of an hour	69
— half an hour	—
— three-quarters of an hour	60
— one hour	62
— one hour and a quarter	62
— one hour and a half	60
— one hour and three-quarters ..	60½
— two hours	52

One grain administered	98
After a quarter of an hour	74
— half an hour	72
— three quarters of an hour	76
Subsequently	78
Half a grain administered ... pulse	72
After a quarter of an hour	69
— half an hour	69
— three quarters of an hour	60

In all these cases, before sleep came on, there was felt a slight uneasy sensation about the epigastrium, which seemed as if constricted; and there was a disposition to eructate. The variations in the pulse, Dr. W. attributed, we know not how correctly, to fortuitous circumstances, and seemed inclined to believe that morphia exerts neither sedative nor stimulating powers on the circulation, but that its action is confined almost exclusively to the nervous system.

This subject will, however, be resumed at the next meeting, on Tuesday, 12th April, when colchicum and white hellebore, with their proximate principle, veratria, will likewise be discussed.

ROYAL INSTITUTION,

Friday, March 26, 1831.

GEORGE MOORE, Esq. F.S.A. VICE-PRES.
IN THE CHAIR.

Mr. Faraday "on Light and Phosphorescence," with reference especially to Mr. Pearsall's Experiments on the Power of Electricity to confer Phosphorescence on certain Minerals.

So little is known as to the nature of light; that every hint, however slight, challenges attention, and becomes estimated highly in proportion to the acknowledged obscurity of the subject it illustrates; and hence is it that the discovery, by Mr. Pearsall, that bodies such as chlorophane, &c. which are naturally phosphorescent, may, when their phosphorescence has been exhausted by heat, have it restored by a shock of electricity; and that others, such as some colourless varieties of fluor spar, which naturally are not phosphorescent, may, by the same power, have an adscitious phosphorescence conferred on them, although not in itself (considered as an isolated fact) one of striking importance, still as promising to open a new portal to other discoveries into the mysterious nature of an agent with which we are so familiar, and of which we are at the same time so ignorant, must ensure due credit to the young philosopher who begins thus early to pay a willing tribute to the treasury of science. Without attempting an epitome

of the various theories of light and the several doctrines of phosphorescence with which Mr. Faraday so ably commenced his lecture, the discoveries referred to are shortly these:—"During some experiments in which electrical discharges were made over that variety of fluor spar called chlorophane, which is peculiarly distinguished for its phosphorescence when heated, Mr. Pearsall observed that the phosphorescent light of this mineral was very sensibly increased. This led to the supposition that perhaps other substances which had been deprived of their phosphorescence by calcination, might have it restored by means of the electrical action; and further experiments confirmed this supposition; for when a phosphorescent mineral was sprinkled, in coarse powder, on a hot iron or platinum plate, and allowed to remain until the phosphorescence became exhausted, and when a portion of this exhausted powder was electrified, and again subjected to heat, it was again phosphorescent; neither did any number of repetitions seem to impair its power of having its phosphorescence thus restored. Furthermore, Mr. P. also found that some bodies, not naturally phosphorescent, might have, by means of electricity, phosphorescence conferred on them, *e. g.* a colourless variety of fluor spar, which gave no indication of phosphorescence when heated, after it had had six discharges made from a Leyden over it, became endued with the power of evolving a beautiful flame-coloured, or orange-light, when heated.

The phosphorescence thus communicated to minerals increases in beauty and intensity, and in the variety of its tints, after repeated explosions. The following experiments were made to note the progression: a specimen of green fluor, from Wearsdale, was selected, on account of the dark colour of the light given to it. After calcination, it was placed in the influence of the following explosions, which were regulated by a discharging electrometer attached to the jar. This variety of fluor was naturally phosphorescent, with a deep blue and purple light.

1st discharge, faint purple phosphorescence when heated; 2d, faint green, succeeded by purple; 3d, same colours strengthened; 4th, purple increased; 6th, green light, brighter and stronger; 10th, strong green light, purple rich;

20th, colours deeper; light remaining longer; 40th, colours very rich, inclining to red; 100th explosion, green tint, very vivid and yellower, the purple increased in richness; 160 discharges gave *intense light*, nearly white when heated, succeeded by brilliant green, rich purple of long duration; then yellow, and tints of violet.

The communication of colour is not the least curious feature in these experiments; but for further information on this point we must refer to Mr. Pearsall's papers, in the last two numbers of the Journal of the Royal Institution, where the researches are fully detailed. We can only add that intensity, rather than quantity, of electricity, seems to be required, for the light is very feeble that ensues when a powerful galvanic battery is used, compared to what it is from the discharge of a few Leyden jars.

In the Library we noticed Mr. Bakewell's apparatus for making bricks of an improved fabric, by which the clay is subjected, when soft, to very considerable pressure, and the brick, when burned, is hard, heavy, and very compact. This seems to us an important improvement, and one much wanted, for the bricks with which modern houses are built have long been notorious for their worthlessness.

There were likewise on the table several specimens of New Zealand flax, in various states of preparation: this is a valuable commodity, and the plant should be cultivated in this country: its fibre is extremely tough and strong: it well deserves its name, "*Phormium tenax*." We likewise examined a very beautiful engraving, by Turner, from a painting by Sir Thomas Lawrence, and said to be the likeness of the late Dr. Thomas Young. In our eyes, though very excellent as a work of art, it appeared a very faint resemblance of the talented original.

LITERARY AND PHILOSOPHICAL SOCIETY, MANCHESTER.

Physiology of the Heart.

A PAPER, by Dr. Williams, of Liverpool, has, we understand, been lately read before the Literary and Philosophical Society of Manchester, on the subject of the late controversy concerning "The Cause of the Impulse of the Heart on

the side of the Chest." This phenomenon is referred, by Dr. Williams, to circumstances totally differing from those advanced by the authors who have preceded him: he attributes it to the peculiar distribution of the fibres of the heart, and especially to some situated at the posterior and internal part of the right ventricle, by whose contraction the apex of the heart is tilted against the parietes of the thorax. This paper will shortly be published, when we shall make our readers acquainted with the particulars of Dr. Williams's views.

COLLEGE OF PHYSICIANS.

Monday, March 28.

SIR H. HALFORD, BART. IN THE CHAIR.

THE meeting this evening was very numerously attended. Every disposition has been evinced by the members of the profession, in all its branches, to avail themselves of the opportunity afforded them of joining in these conversations, so well calculated to promote unanimity and good feeling. It has, however, become a subject of general regret that so few of the Fellows should support the learned President in his efforts to render them attractive, by the contribution of papers; and when we call to mind the names of many who have made valuable communications to other learned bodies, we cannot but concur in the sentiment to which we have alluded.

The Registrar read a paper which excited considerable interest: viz.

Observations on the Effects of Strychnia on the Animal Economy, chiefly with reference to its Employment as a Remedial Agent, elucidated by two Experiments on Dogs. By DR. A. T. THOMSON.

Before entering on the more immediate business of the paper, Dr. Thomson took occasion to express his opinion with regard to the sacrifice of animal life, which he held to be "inexcusable," unless for the elucidation of some practical point. The author then proceeded to state, that he had had frequent opportunities of witnessing the good effects derived from the extract of nux vomica and from strychnia in cases of paralysis; and that he had been led to believe, that practitioners in general were impressed by more than the

necessary caution in their administration in those cases where there were headache and vertigo from determination of blood to the head.—Dr. Thomson has been accustomed, like others, to have the vessels of the encephalon unloaded before exhibiting the strychnia; but on poisoning dogs with the substance in question, he did not find that the cerebral circulation appeared to be influenced by it. The strychnia employed was white and crystallized, and though it was somewhat reddened by nitric acid, by which it was shewn to contain *drucia*, yet the proportion of this adjunct was as small as Dr. Thomson has ever found it to be.

EXPERIMENT I.—A quarter of a grain of strychnia, rubbed into an impalpable powder, was placed on the tongue of a small spaniel. The animal swallowed the poison, and continued lively and apparently unaffected for ten minutes; when the dose was repeated. For two minutes longer the dog continued sportive, but after this time began to draw the tail between the legs, and to shew some loss of power over the hinder extremities. At the end of four minutes she fell in the effort to leap, lying on the floor with the limbs extended and rigid, the eye turgid, and the pupil dilated. After another minute had been suffered to elapse, some tincture of iodine was poured into the creature's mouth, with a view of ascertaining its powers as an antidote; but it did not seem to be swallowed. The urine was now forcibly ejected, the spine and toes contracted, and at short intervals the respiration was spasmodically affected. In five minutes more the dilatation of the pupils rapidly disappeared, the rigidity of the spine and limbs relaxed, and the breathing ceased—the animal expiring exactly twenty minutes after having taken the first dose of strychnia.

The body was opened in ten minutes afterwards, and presented the following appearances:—No indication was perceptible of any irregularity having taken place in the circulation of the encephalon or spinal cord; the brachial artery of the left side was opened, and discharged dark blood, exhaling the odour of iodine, which, however, could not be detected by the usual chemical tests. The lungs readily collapsed; they were not gorged with blood, but had minute petechial spots beneath the pleura. The heart was much distended, and

could not be excited to act by pinching it. The dilatation was chiefly in the ventricles; the blood on the left side of the heart was not florid; the aorta was very much contracted. No apparent effect was produced when the phrenic nerve was irritated longitudinally, but contractions were excited in a few fibres of the diaphragm when the knife was drawn across it. The temperature in the thorax was 98° , but in the abdomen it was 102° . This fact was ascertained by making a small aperture in the diaphragm and introducing the thermometer through it before the abdomen was opened externally. The stomach was empty and contracted; the mucous membrane throughout was pink, and without injection of vessels. The lining membrane of the other parts of the alimentary canal was white. The vessels of the outer covering of the kidneys were turgid with blood. The urinary bladder was empty and contracted; the gall bladder was full and tense.

EXPERIMENT II.—Two grains of strychnia were given to a strong poodle bitch, to which some time before large doses of various salts of lead had been administered without injury, and into the left jugular vein of which an ounce of camphorated oil had been injected two days before without apparent inconvenience. In this case ten minutes elapsed without any change, when another grain of strychnia was rubbed on the back of the tongue. Soon after this, symptoms exactly similar in kind, but more violent in degree than those last described, came on; the creature was stiffened like a statue, the tail was extended, and even the ears elevated. Death took place, as in the former case, just twenty minutes after the poison had been taken—the state of tonic spasm being for a moment previously changed for that of relaxation. The body was opened in four minutes after death: the lungs collapsed perfectly; they were of natural colour, and did not exhibit the petechial effusions noticed in the former examination. The heart was “enormously” distended, and could not be excited by any stimulus; the aorta was very much contracted, not exceeding a crow-quill in size; the phrenic nerve had not lost its excitability—being rubbed transversely, short and rapidly repeated contractions of the diaphragm were produced; and the

effect was still stronger when the nerve was rubbed longitudinally. In the abdomen all the veins, including the diaphragmatic, hepatic, portal, &c., were unusually loaded with blood, while the arteries were correspondingly diminished; those of the mesentery were not larger than a thread. In the head and spine the usual distribution of blood was unchanged.

The author of the paper regards it as established, by these experiments, that strychnia does not influence the circulation through the brain, even when it is given in quantities sufficient to produce death; and consequently, so far as inferences can be drawn from trials on the lower animals, that we may give this powerful agent and its salts “in cases in which, although the paralysis may have arisen from pressure on the brain, yet there is reason for thinking that benefit may be derived from so direct and powerful a stimulant of the nervous energy as strychnia.” The previous use of bleeding, however, was recommended, to prevent the overdistention of the venous system, which the contraction of the arteries produced by the remedy might otherwise effect. Indeed this contraction, which seems to be both powerful and general, is one of the most remarkable phenomena produced by strychnia, though less familiar to us than the spasmodic affections of the voluntary muscles.

Dr. Thomson stated that the object of the essay was not to adduce cases in illustration of the powers of the medicine, otherwise he could have detailed many examples proving its remedial influence in paralytic affections of various parts of the body; particularly in paraplegia from carbonate of lead.

The mode of exhibiting it which the author has found efficient, is in a draught, with as much distilled vinegar as is sufficient to make a transparent solution. Without this precaution, strychnia is, from its insolubility, apt to vary very much in its effects, according to the state of the stomach—being most active when this is acecescent. He has seldom ventured to exceed half a grain three times a-day.

Two cases were given in conclusion, with a view of illustrating the remedial action of strychnia on the motor nerves, where the sensibility remained unimpaired.

CASE I.—A lady, aged seventy, of

spare habit, was attacked with hemiplegia of the right side; the power of motion was entirely gone, but the sensibility of the side was unaffected. After evacuating the bowels freely, the use of the acetate of strychnia was begun in doses of a sixteenth part of a grain, and repeated every six hours, the dose being gradually increased to a quarter of a grain, when tetanic convulsions supervened, and the medicine was discontinued. In a few days after the strychnia had been commenced the lady regained the power of raising the arm, and in ten days she could move the leg. After the supervision of the tetanic convulsions she improved very rapidly, and regained nearly as much voluntary power over the muscles of the affected side as she had enjoyed prior to the attack.

CASE II.—A medical man from the country, having occasion to visit London, was seized with hemiplegia while walking in the street. He was freely bled by cupping, after which he recovered the power of moving the limbs. Purgatives were now given, which acted so briskly as to produce great exhaustion, during which he fainted. The arm then relapsed into its paralysed state as to motion, but its sensibility remained unimpaired. Dr. Thomson saw him on the following day (June 14th). The arm was entirely, and the leg partially, paralysed. After a dose of calomel and a purgative draught, the use of strychnia was commenced in the following manner:—

R Strychniæ, gr. ii.
 Aceti Distillati, f. ʒss. solve.
 R Liquoris Strychniæ Acetatis, ℥xx.
 Infusi Corticis Aurantii, f. ʒiss. Ft.
 Haustus bis indie sumendus, M.
 R Ammoniac Carbonatis, ʒss.
 Vini Colchici, f. ʒiss.
 Misturæ Camphoræ, f. ʒvi. Fiat mistura cujus cochlearia tria majora mane nocteque sumantur.

In addition to the above, the bowels were kept open by means of colocynth combined with camphor, and on the 17th the quantity of the solution of strychnia was increased by ℥v., the draught being taken three times a-day. By the 23d some improvement was perceptible, and the paralysed leg was under the influence of the medicine, being on the "full stretch" at night, with slight twitchings. The quantity of the solution was again increased by ℥v., and from this time the improve-

ment was stated to have been progressive. July 6th he was able to walk with the aid of a stick, to use the arm, and to articulate as well as ever. He returned home, a distance of 190 miles, and bore the journey well. The medicine was afterwards increased till he took three-fourths of a grain three times a-day, when it brought on vertigo, with tetanic spasms, which led to its gradual diminution, and at the end of two months it was entirely omitted.

Nov. 30th. — The patient is stated still to be recovering.

Two cases of epilepsy, communicated by Dr. Roberts, were next read. Both had followed injury of the head, in which no depleting means were had recourse to in the first instance. One of the patients died, and, on being examined, two ounces of serum were found in the ventricles and a tumor in one of the hemispheres, surrounded by a portion of brain in a state of ramollissement. The result of the second case was not given; indeed the inference was that the patient still remained under treatment. Dr. Roberts concluded by remarking upon the propriety of depletion after all such serious accidents.

WESTMINSTER MEDICAL SOCIETY.

To the Editor of the London Medical Gazette.

SIR,

ALTHOUGH you have of late discontinued to report the proceedings of the Westminster Medical Society, this circumstance will probably not be considered by you as prohibiting some allusion to certain recent events, by which the stability of the institution alluded to has been brought into imminent danger—a danger from which it has only been rescued by the good sense and prompt decision of its members. The passion for "reform" seems to have turned the heads of some weak people, who are evidently of opinion, that, because Lord John Russell's bill has met with general approbation, there is no establishment of any kind which ought not forthwith to undergo some very important alteration. Now, sir, we have gone on for two-and-twenty years at our society without having,

during the whole of that long period, suffered so much interruption to the harmony and usefulness of our discussions as during the last five or six meetings of the present season. Not many nights ago Mr. King proposed to introduce a discussion about the naval surgeons, and subsequently he made the same attempt with regard to the College of Surgeons; on which last occasion he actually produced AN IMMENSE CONSTABLE'S STAFF, which he flourished in his hand, to the infinite amusement of the junior, and great scandal of the senior members present. Will you believe, sir, that at the time he committed this outrage, and attempted to make these innovations, Mr. King actually was not a member of the society? he had been balloted for, it is true—and lucky for himself that it was so; but he had not subscribed his name to the laws, nor been admitted by the President. It might have been hoped that the loud and general expressions of indignation with which his intrusions were received on these occasions, would have convinced him that in our society at least some respect is paid to those restraints of decorum and propriety which have heretofore regulated associations of gentlemen; but I am sorry to say, that if any such expectation were entertained, it was in no degree realized; and I for one must protest against the absurd manner in which this unfledged member almost invariably begins, by declaring his deference to the chair and submission to the society, and follows up this declaration by an obstinate and dogged perseverance in whatever he has begun, however unequivocally the mandate of the President and wishes of the members may be expressed. As I have stated, when Mr. King insulted the society in the manner above-mentioned, the immediate interference of the members (for the President was greatly too undecided) prevented what the pseudo-reformer said, or intended to have said, from being heard; but at the last meeting, and during the discussion of a different subject, Mr. K. took an opportunity to inform the society (and it was done by way of shewing that not he, but they, had been out of order,) that "when he produced the constable's staff, he had no other purpose than to ask, if any of the council of the College of Surgeons were members of the Westminster Medical So-

ciety." You may, perhaps, imagine, Mr. Editor, that I am trifling with your readers and caricaturing Mr. King, but it is not so; I repeat that this gentleman at the meeting on Saturday, March 26th, distinctly asserted, *that, in producing a constable's staff, he had no other purpose than to ask, if any of the Council of the College of Surgeons were members of the Society!* What connexion there was between the staff and the question, or what occasion there was for coming thus armed publicly and formally to interrupt the business of the Society, and to ask what any one could ascertain by looking at the list of members which is always laid on the table, and with a copy of which every one is furnished on his admission, I leave for Mr. King to explain.

The danger, however, to which I alluded, as having threatened the Society, is this:—a motion was made by Mr. Evans, and seconded by Mr. King, having for its object the introduction of medico-political subjects for discussion. On this a lengthened debate took place, which must have been extremely mortifying to the supporters of the motion, as they were only able to muster three speakers on their side, that is, only ONE, (a Mr. Skene, I believe,) in addition to the mover and seconder. Mr. Evans, who had introduced the motion in an apologetic strain, which shewed that he was more than half ashamed of it, was evidently disposed to adopt the suggestion of Dr. Barry, and others, of withdrawing it; but Mr. King informed the Society, that "if he stood alone," the question should be put. Had a division taken place upon the original motion, he would certainly have been very nearly in the predicament he supposed: but two proposals were now made, both of which were intended to get rid of the motion, but by different methods; one was, that the discussion should be adjourned *sine die*; the other, that instead of a general admission of political questions, any particular question might be proposed, and its admission for discussion, or its rejection, be decided by ballot. So strong, however, was the feeling of the Society against opening a door to any such discussions, that even this guarded proposal, though made by Mr. Arnott, one of the staunchest opposers of the radical measure, was negatived by 38 to 25. Mr. King, finding himself in the mino-

rity, declared that there must be "some mistake"—a remark which was received with shouts of laughter; so characteristic was it felt to be of the "honourable" member, who was determined to shew that he was in no respect inferior to Goldsmith's schoolmaster,

"For e'en tho' vanquish'd, he could argue still."

Mr. King, who was now constantly upon his legs, next informed those present that he was less concerned at the result, as he had lately seen eighteen hundred hands raised in favour of medical reform—alluding to the "entertainment" at the Crown and Anchor;—on which occasion, I presume, the voters held up *both* hands, for while Mr. King makes the numbers *eighteen hundred*, his master only calls them "*nearly a thousand*," and I know of no such probable explanation of this discrepancy as the one I have just mentioned.

For the present, then, we have escaped, but the well-being of the Society is still in jeopardy; for, unless the Presidents exert more authority than some of them have recently done, and enforce obedience to the laws, and attention to decorum, from the refractory—the more respectable members, it is to be feared, will discontinue their attendance, and the debates, left in the hands of the *indisident* reformers, become worse than useless.

Your obedient servant,
WESTMONASTERIENSIS.

March 29, 1831.

PROFESSOR PATTISON*.

To the Editor of the London Medical Gazette.

SIR,
I HAVE read from time to time with no little surprise, and not without incredulity, the accounts you have given of disturbances in the Anatomical Theatre of the London University. I suppose, however, it is best to be surprised at nothing. It will only be fair if I admit, at once, that I am in some degree inte-

rested in the reputation of the Professor of Anatomy, from having been his pupil in Glasgow fifteen or sixteen years ago. As I have always considered him to be an accomplished anatomist, I am necessarily slow in my belief of his recently-discovered incompetency.

It was in 1812, if I am not mistaken, that Mr. Pattison, on the death of Allan Burns, whose demonstrator he had been and intimate friend, succeeded to the vacant chair in College-Street. I am able to speak with confidence respecting the estimation in which he was held during three successive courses of lectures, of six months each, which he delivered in the winters of 1814, 15, and 16. His class-room accommodated, but with some difficulty, 128 pupils. I well remember that there never was one seat unoccupied in a single lecture. My impression is, that he was regarded by the students generally as being by far the best teacher of anatomy in Glasgow; at a period, too, when, besides the University Professor, Dr. Jeffrey, he had the late Dr. George Monteith as a competitor. He was particularly noted for minute and accurate acquaintance with anatomy, and especially for his surgical anatomy. His demonstrations on the neck and face are not likely to be forgotten by those who had then the privilege of witnessing them.

Mr. Pattison's manner as a lecturer was inferior to that of his opponents. Monteith was a handsome man, with a graceful delivery; while the other, Professor Jeffrey, is (or was) one of the best-looking men I have seen, and remarkable in his physiological discourses—a branch to which he devoted too much of his course—for dignified and most attractive eloquence. Pattison spoke with a lisp, and his delivery was peculiar and somewhat monotonous, but—I speak in the past tense, for I have not seen him for more than fourteen years—his language was sufficiently fluent, distinct, and impressive; and those who were attentive to the *matter* which he so zealously uttered, as all the students I believe were, had no fault to find with the *manner*.

Mr. Pattison is still a young man, in the full vigour of his days. Of course I cannot pretend to say that he may not be changed from what he was when he so honourably filled the chair of Allan Burns. Years, it has been said, teach

* The following letter is from the pen of a highly-respectable practitioner in Manchester: motives of delicacy forbid the publication of his name.—E. G.

wisdom. It is strange if he have indeed gone backward in attainments, when the young gentlemen, his auditors, few of whom, perhaps, are half his age, are so forward in knowledge. This is a mystery too profound for me to solve. Perhaps, but I speak with the greatest diffidence, there is one way of accounting for his recent incompetency as a lecturer. Sixteen years ago students were less precocious and enlightened than they are now. They were modest, diligent, and many of them ardent, in the pursuit of professional knowledge. They formed themselves into clubs, it is true, but it was for literary and scientific purposes. They were then too simple to think of forming "Committees," in order to control and manage the affairs of their Teachers. It certainly, at that period, did not occur to them that they knew as much as their instructors. On the contrary, there were very many who lamented their ignorance, and who trimmed the midnight lamp that they might satiate their thirst for that honourable knowledge, which, in the case of several, with whom I am proud to claim acquaintance, has conducted them to eminence in their profession, and no less to deserved estimation as members of society. This simplicity of theirs—this dawn of intellect, in comparison of the noon-day intelligence of our present illuminated order of students—is doubtless the reason why, in 1815, those who had sat at the feet of Allan Burns could, when he was removed, still listen with deep interest to the accurate anatomical instructions of his friend and successor.

Believe me, sir, to be, with humility,
Yours,

S.

Manchester, March 31, 1831.

COLLEGE OF SURGEONS.

To the Editor of the London Medical Gazette.

SIR,

THE perusal of a letter in your Gazette of the 2d instant, signed Lionel Beale, has induced me to offer a few remarks on the same subject; but before I proceed I would notice the conclusion of his first paragraph, where, in speaking of

the late discreditable conduct of a party in the theatre of the College of Surgeons, he expresses his "fear that the unbiassed judgment of the better part of society will see, in the conduct of both parties, the dominant power of some of the bad feelings of our nature."

I was present during the confusion on the 8th ultimo, and I must confess that I did not witness any bad feeling on the part of the Council. I conceive that it was their duty to prevent any such disturbance as was likely to disappoint those respectable members and students who attended for the sole purpose of hearing and profiting by the lectures; and that, after the threat held out to them in the *Lancet* of the 5th, it was rather their duty to have been better provided with the means of meeting and abating the nuisance which they knew they were destined to encounter; although, indeed, I firmly believe that, if the peace-officers first called in to remove the rioters had not been deterred by fear, or by some more unworthy motive, from doing their duty, the promoters of the confusion would have been easily quieted or removed, and that the lectures would have proceeded without further interruption. I see with Mr. Beale some defects in the constitution of the College, and I should be glad to see them corrected; but I remember that I was fully acquainted with the nature and construction of the Council before I sought the diploma; that no law enforced my seeking it; that I considered its acquisition likely to benefit myself; and that I voluntarily entered into the solemn obligation of an oath, to respect, to observe, and to obey the by-laws of the Council; nor would I, after having taken that oath, load my conscience with the commission of a perjury by breaking the engagement I had voluntarily made, however much I might wish to see some alteration in the terms of the charter. I, however, would readily join with any number of respectable members to address the Council, and recommend such changes as might be thought conducive to the honour of the profession, and to the advancement of the public good; but I would go no farther without previously disfranchising, and thus releasing myself from the obligations of my oath. If I found the Council obstinately resolved to make no such change as the supposed respectable body of its mem-

bers might suggest, I would advise all the dissatisfied members to secede from the College, and to pray that they might be disfranchised without paying the usual fee required for that ceremony.

But, sir, I have heard it whispered, that, long before the late events took place, some liberal-minded members of the Council had contemplated such a change in the elective body as was very likely to give satisfaction to all those members whose good opinion was worth acquiring. The late disgraceful proceedings, I fear, are more likely to retard than to advance such a measure. Indeed I should be very sorry to see among the governing body those members who made themselves so notorious by their riotous and disgraceful conduct towards the President and Council on the 8th; and I trust that some measures will be adopted to rid the College of such characters. I agree with Mr. Beale, that the elective privilege cannot be thrown open to all the members; and I think—as I know some of the Council think—that all the members of the College who are not licentiates of any other body, and who are not practising pharmacy or keeping shops as chemists, ought to have a voice in the election of members of the Council. Some such change as the above would open the door sufficiently wide, and would destroy the principle of self-election, without the inconveniences of universal suffrage; but this change would involve the necessity of a new charter and an act of parliament; and it would also involve the necessity of two classes in the profession—not a new class inferior to the present members, but a new class of a higher order. The education and the examinations for the diploma, which, after all, is only a certificate of examination, and gives no privileges whatever, might continue as at present for members of the College, but there ought to be a higher examination for *Fellows*, or by whatever other name the class of surgeons might be designated who intended not to combine the practice of pharmacy with surgery, and in whom the elective franchise would be vested.

I should myself, and I imagine that every member of the College would, on serious reflection, be satisfied with some such plan as this. Entertaining the highest respect for the general practitioners as a body, and for a great num-

ber of them as my friends, I think they will see that the College of *Surgeons* has only to legislate for its own branch, and not for a mixed profession. It is optional with them to become members, or to practise without the diploma; and any laws made to regulate the practice of surgery cannot be offensive to those who may choose the more lucrative branch of pharmacy alone, or of pharmacy combined with surgery.

Your obedient servant,
CHIRURGUS.

London, April 6, 1831.

MEDICAL GAZETTE.

Saturday, April 9, 1831.

"Licet omnibus, licet etiam mihi, dignitatem Artis Medicæ tueri; potestas modo veniendi in publicum sit, dicendi periculum non recuso."—CICERO.

CONSTITUTION OF THE COLLEGE OF SURGEONS.

It matters not what they do—were they of such noble natures, that, like Hotspur, their honour

— "stuck upon them as the sun
In the grey vault of heaven,"—

yet would the Council of the Royal College of Surgeons of London have no honour rendered to them so long as those most forbidding and unconstitutional epithets, "self-elected," and "irresponsible," could justly be applied to them. We know not a more striking illustration of the different estimation in which men are held, according to the medium through which we view them, than is afforded in the present instance. For the most part, it happens that bodies command, in the aggregate, a degree of respect which we deny them in the particular, and we may say that this is the general and natural effect of combination. It is as old as *Æsop*, that a bundle of rods is stronger than the separate twigs. Not so the learned Council of whom we speak: individually, they are persons of influence—eminent in science, and holding prominent places in society: collectively, their best acts are received

with coldness, and their motives looked upon with distrust. What, then, is it in the atmosphere of Lincoln's-Inn-Fields which thus either changes and corrupts the nature of those who breathe it, or so perverts the moral optics of those who look upon them? It is nothing more than this, that a governing body, self-elected and irresponsible, is repugnant to the spirit of the times; and were their acts those of perfect wisdom, and their purity immaculate, yet would they fail to please: so long as their members are brought together by no exercise of any general privilege, and so long as their proceedings are veiled from the public eye, so long will the Council of the College of Surgeons fail to acquire popularity, however irreproachable their conduct may be.

The charter, as it now stands, is an anomaly in the English constitution, and ought to be amended. The more we reflect upon this subject, the more we are convinced that the opinion we have expressed is well founded. No one can justly accuse us of "radical" propensities; and the very circumstance of having some character for maintaining doctrines of an opposite nature, and steadily opposing the interested clamor of systematic agitators, enables us to speak our sentiments on this occasion with a freer and firmer voice. Unlike some of our contemporaries, we look on the questions regarding the College of Surgeons through no distorting medium: we have no shuffling, underhand, paltry purposes to serve—no interests that can be affected to dazzle our vision or mislead our judgment. We have denounced, and with the sincerity of strong conviction we again denounce, the mixture of petty trickery and audacious violence by which a knot of individuals, either wholly unknown, or known only as infamous, have endeavoured to step forward as leading men in the profession

and to occupy the places which always have been, and always will be, allotted to persons not less their superiors in scientific acquirements than in individual character. But though we view these gentry with the contempt they merit, it would be absurd to shut our eyes against the circumstance—the only circumstance which has tended to give them even a momentary importance—we mean the want of some bond of union between the Council and the Commonalty of the College of Surgeons. The latter loudly cry against this defect; and the former, we should suppose, can scarcely feel it less strongly. Had there existed any common ground on which they could meet, how differently would both parties have now been situated! The Council and the Commonalty, equally alive to their mutual interests and professional honour, would have combined to drive the rioter and his associates from their halls; and habitual libellers, and bankrupt adventurers, would no longer have disgraced the list of English surgeons. Elevated for a moment by political commotion, like the scum which is raised by the struggles of fermentation they would have been cast forth as vile the moment the excitement had ceased, and the very spirit of the profession been purified by their removal.

As the College is now constituted; this unity of feeling and of action, however desirable, can never be effected;—but its constitution is not immutable, and we yet hope to see it changed. If the Council were to lead the way, the Commonalty would join them cordially in any liberal measure; and we doubt not would themselves prefer that there should be some provision as to the mode of election which might prevent the introduction of improper persons into the governing body. As in other analogous cases, the Council might name a certain number, from

among whom the Commonalty might make the individual choice; or no one might be eligible till he had been a member for a certain number of years; or no one might be allowed even to vote till a certain period after the date of his diploma. Certainly no one ought to be eligible for a seat in the Council who practised any other branch than surgery; perhaps no one ought to have a vote who belonged to any other medical corporation*. These doubtless, or better regulations, might be adopted, so as at once to exclude improper candidates, and remove the odium of self-election from a body of men against whom this reproach, so long as it can be made, stands as a perpetual bar to their useful exertions; because they do not, and, under the present system, never will, secure the co-operation of the great mass of the surgical profession.

One thing there is, however, which the Council, constituted as they are, might do, and which, we are certain, would give general satisfaction—it is to publish an annual statement of their accounts. Persons who make a trade of calumny boldly state large sums to be appropriated by the Council to sinister purposes, or, in other words, directed from their proper channels into their own pockets; and men not naturally suspicious, when they find statements of this injurious nature constantly reiterated, and still left uncontradicted, at last begin to think that there must be some foundation for what is so confidently asserted, and suffered to continue unrefuted. We, whose vocation has led us to estimate the truth of statements by other circumstances than the tone in which they are made, and who have little difficulty in reducing to their intrinsic value the most solemn falsehoods of knaves who live by slander, know that

these charges against the Council are but cunning appeals to the prejudices of the credulous. We have been informed by those acquainted with the facts, and whose veracity is above suspicion, that such insinuations are wholly and entirely groundless—that the finances are scrupulously applied to their appropriate purposes—that the income is less, while the expenses of the establishment are greater, than is generally supposed*. We are satisfied of all this, but that is not enough; the members generally ought to be assured of it. Money, all of which is derived from the public, and some of which comes by Parliamentary grant, ought to be openly accounted for; and the Council owe to public opinion this acknowledgment of responsibility, no less than they owe it to themselves to exhibit to the world proofs of their faithful stewardship. Their honour ought not only to be untainted, but unsuspected.

Turning from the Council to those who have been so active in their opposition as to propose the establishment of a rival college, it is curious to observe the contrast they present in every thing. We have described the Council in Lincoln's-Inn-Fields as men individually eminent and personally respected, whose acquaintance and friendship are cultivated by all among their contemporaries in the metropolis whose better fortunes have brought them into the higher walks of the profession: to characterize the meeting at the "Crown and Anchor," it may be sufficiently descriptive to say that the above picture has a reverse, and that of the *confrères* there assembled, though some be notorious, none enjoy any enviable distinction. They themselves are shunned by every one who values character, lest being

* Since the above was written we have received a letter, signed "Chirurgus," containing opinions in some respects similar. See page 55. We may also refer to the letters of other correspondents.—ED. GAZ.

* We believe that the museum alone costs 1500*l.* per annum.

seen in their society should blast his reputation; and their College, announced with all the inflated absurdity of impotent pretension, has already become a by-word and a scorn, while the name of the founder prefixed in ridicule, has passed into a *sobriquet*, indicative of its infamy, and prophetic of its fate. Yet does this contemptible junta derive apparent strength from the weakness of their opponents,—the present constitution of the College being evidently insufficient for its own internal government. A writer in the *Times*, assuming the signature of MACHAON, states that the Council have applied for new by-laws; and to us it appears obviously to be imperatively necessary that some change should in this respect be made, for that a corporate body should be without the power to expel members who disgrace them, is an anomaly and a palpable absurdity. At present they are bound, by the terms of a parliamentary grant, to have certain lectures delivered, and yet have not the power to exclude those who defy the President, prohibit the lectures, and convert the theatre into a scene of preconcerted and regularly-organized riot. Mr. Machaon, in calling the attention of the public to the circumstances, tells the truth indeed, but not the whole truth; for, while descanting on the atrocity of employing peace-officers to eject the members, he ought to have premised that the said members had first broken the peace in the most outrageous manner, and been guilty of such violence as, we presume, was never before witnessed in an assemblage professing to call themselves gentlemen and men of science.

If we may judge from the tone of the above, and various other correspondents in this journal and in some of the daily papers, considerable misapprehension prevails with regard to the late events at the College of Sur-

geons, as well as in respect to the relation in which the Council and Commonalty stand to each other. Thus "One of the Multitude*," in a letter otherwise containing many judicious observations, says that the members "have not failed to perceive that the Council consider the Commonalty to have no right or interest in the property of the College, and that they are only permitted to enter the theatre by courtesy." Now we are at a loss to conceive by what process of reasoning this inference can be drawn from any thing which has occurred. If the Council have any such idea as that of which they are here accused, they wholly mistake the situation in which they are placed; which, as we stated on a former occasion, is simply that of trustees of the theatre, for the purpose of the lectures. The act which apparently conveyed this unfavourable impression to our correspondent (and, if to him, possibly to others also) was the forcible ejection of Mr. Wakley: but this measure proves only that the Council look upon themselves as justified in preventing the theatre from being used for purposes foreign to those for which it was erected, and so much at variance with the express conditions on which the parliamentary endowment was obtained, that the Council themselves could not, even if so disposed, use the room for Collegiate purposes at any time when such proceeding would interfere with the delivery of the lectures. Every member has the *right* of admission into the theatre, but for a specific purpose—namely, that of hearing the lectures; and except for this he has no kind of interest in it. This may be a disagreeable truth to the members—but it is a truth, notwithstanding; and, considering this fact, we cannot but marvel with our correspondent "Chi-

* Gazette, March 26th, p. 818.

rurgus," how some persons can reconcile their conduct on a late occasion to the solemn obligations of the oath they voluntarily took.

So far from blaming the Council for having done too much on the occasion alluded to, we are of opinion that their error was in stopping short; and we feel confident that if they had at once published an official statement, openly and candidly explaining to the members the obligations of the charter—informing them of what Mr. Keate had done with regard to the naval surgeons, and exposing the trickery of their opponents to half the extent that has been done in the pages of this Journal, the theatre might have been opened without the least hazard of disturbance. Indeed, we think that the members at large have reason to complain, after all the warnings which Wakley and his followers had given, that the Council were not better prepared for the maintenance of order; and even now the suspension of the lectures is a very serious evil—depriving the members of one of the few privileges they possess—preventing many students who are about to leave town from reaping much important instruction—and affording a tacit acknowledgment that the rioters had not only the will but the power to work mischief.

Undoubtedly the Council would do a graceful thing to propose, in conjunction with the commonalty, some popular modification of their charter: they might then apply with more confidence and with more certainty of success, for better by-laws; then would a great majority of the members join heart and hand in assisting them to consummate every measure for the public good, instead, as now, of looking on them with coldness, or secretly rejoicing at any annoyance they may receive, though coming from men whose principles they condemn and whose characters they despise.

NAVAL SURGEONS.

IN our number for March 26, we stated that it was incumbent on the Lord Chamberlain to give some explanation of the circumstances under which he communicated to Wakley's messengers the result of the application in favour of the naval surgeons, which had been personally made to his Majesty by Mr. Keate. We understand that such explanation has taken place, and that his Grace has stated that he was misled by the belief that the parties who waited upon him had really been officially deputed to receive the gracious answer of his Royal master on the subject.

PARISIAN NEWS.—FACULTÉ DE MÉDECINE.

THE second Concours—that for the chair of *Pathologie externe*—has terminated; and M. Jules Cloquet has been proclaimed the new professor. It is remarkable that in this, as well as in the former instance, that individual has been returned, who was designated, not merely by the voice of public opinion, but by the well-understood inclinations of the judges—a circumstance which has given birth to some surmises and grumbling. The other chairs which are yet to be disposed of are those of physiology—medical natural history—and pharmacology; and it is supposed, proceeding upon the same grounds of opinion, that the successful candidates will be MM. Bérard aîné, Richard, and Brogniart. It will be curious to observe whether these announcements by anticipation will be verified. The Concours for *l'Histoire naturelle médicale* was to have begun on the first of April; but owing, it is said, to some demur on the part of the Faculté des Sciences, in appointing their quota of the jury, it may have been postponed: some *coup d'état* for the arrangement of the affair is talked of; but whatever course of

proceeding is adopted, we shall most probably be able to communicate the issue in our next.

LONDON UNIVERSITY.

Dr. Conolly's Address to his Pupils.

ON taking leave of his class for the short Easter vacation, Dr. Conolly, the professor of medicine, took the opportunity of making some allusion to the scenes which have recently taken place in the University, and of expressing a hope that the few days of intervening holiday-time would be spent in some attempts to produce conciliation, and to restore tranquillity. He could not, he said, affect to be ignorant of that which was a common topic of conversation, at least among the members of the medical profession; that recent circumstances, strongly indicative of disregard for all academical discipline, had alone seemed to authorise his breaking the silence he had so long maintained concerning events which he had witnessed with inexpressible regret. He had seen, during nearly the whole of the past session, with extreme sorrow and mortification, that the attention of those of the students who were most disposed to be industrious had been more or less distracted by proceedings quite unconnected with those pursuits which ought alone to be followed within those walls. The tranquil and useful, and ennobling occupations of science, had been interrupted and forgotten in disturbances fatal to habits of study, and into the particulars of which he did not think it necessary to enter. When those to whom he now addressed himself returned to their homes and to their friends, he begged them at least to do him the justice to represent that he had never, either directly or indirectly, by counsel or by insinuation, given any encouragement to these lamentable interruptions. He trusted this would be remembered, not only at present, but in future years, when the agitations of the session would be looked back upon more calmly and reasonably. He was willing to make large allowances for young and ardent-minded men, who, he knew, were led to engage warmly in any cause which excited their feelings; but whatever the object of the students might be who were most active, one thing was quite evident—they were bringing ruin on the medical school. It

was his duty to tell them this: he considered himself bound by solemn engagements to their parents and their friends: it was not sufficient for him to see a long list of names, and to sign tickets and certificates—it was his duty to endeavour to cause the time of his pupils not to be wasted, and the hopes and intentions of their friends not to be disappointed; and he could not behold the time of the students thrown away, and their minds disturbed, without remonstrance. Without wishing to dictate to them with the authority of a professor, he took the liberty of speaking to them as a friend, a little older than themselves; and he could assure them, that he had before had opportunities of seeing how great a misfortune it was for medical students to acquire habits of irregularity, turbulence, and discontent; habits which would find but too much exercise in every situation throughout life. On the particular subjects of agitation in the University, he would offer no opinion: he had his own opinions, and his own feelings on the subject; but he did not wish to be looked upon as the advocate of a party, but as the supporter of the discipline and honour of the University as a place of education. He must repeat, that whatever might be the notions and objects of those who meant the best, and still lent themselves to disorder and riot, they were bringing certain ruin and disgrace on the institution. They must see this plainly, without his pointing it out to them. They could not suppose that any prudent father would, without much hesitation, send his son to a school where his time might by possibility be spent in transactions quite remote from those labours by which alone a knowledge of his profession could be obtained. He himself would candidly say, that if he had a son old enough to study medicine, he would not send him to a school full of dissensions.

Dr. Conolly added, that if the gentlemen studying at the University wished, and he knew that many of them sincerely wished, to restore peace to the institution, and to maintain the character gained in its first session for the respectability of its medical students, he would most willingly act with them, consult with them, and in every way aid and assist them. If any of them had any other objects in view, they must pursue their own course: he could not be their counsellor: but he had at least

warned them of the consequences to the University. He had but one motive for addressing them—one by which he had always been influenced since he became a professor—their welfare, and that of the University. For himself, it was well known that he had resigned his chair; and meant to devote himself to the practical duties of his profession, but he should never, on that account, cease to feel an interest in an institution from which he expected that many and great benefits would flow to the country at large. He hoped, therefore, that even those who differed from him would receive his observations as they were meant; and that those who agreed with him, would strenuously exert themselves, during the few ensuing weeks, for the restoration of that order and tranquillity which was alone worthy of the University, and without the re-establishment of which, the medical session, now nearly ended, could not but close with great disadvantage, and even with great dishonour.

[The above address was received by the pupils with the warmest marks of approbation.]

REPORTS OF CASES OCCURRING AT PUBLIC INSTITUTIONS.

LONDON HOSPITAL.

Hæmatæmia—Chronic Gastritis—Ulceration quickly fatal twelve months after the bleeding.

MAY 11th, 2 A.M. 1829.—O. Abington, æt. 42, a feeble, slender man, with large family and but small means of supporting it, subject to much bodily fatigue and mental anxiety lately, was, though not strong, as well as usual, last night, and supped upon beef and porter; between 9 and 10 he went to bed and obtained some sleep, but was awakened about one this morning by nausea, succeeded by vomiting; he rejected by this means a considerable quantity of florid clotted blood; the exact amount it is difficult to determine, as it was received in cloths, but the probability is, that there was nearly a pint. He is now very faint; the face exceedingly pale and exsanguine; skin cold, and covered with a clammy sweat; pulse very small, 84; tongue clean, and moist; no cough or pain; respiratory murmur audible throughout the chest; some distention at the scrobiculus cordis.

Fomentations to hands and feet; cold drinks.

1 P.M.—The fomentations restored warmth to the skin, and he felt considerably better till just now, when he had occasion to go to

stool (the bowels having been previously constipated.) This again produced syncope, and he is now faint. Pulse 72, exceedingly small; no more bleeding; tongue exsanguine; skin clammy.

Magn. Sulph. 3j. Inf. Rosæ, 3j. Acid. Sulph. Dilut. gutt. x. sextis horis.

12th.—No hæmorrhage; faintness gone off; no pain; one motion.

Perstat.

13th.—Fainted again upon attempting to get up; no bleeding, but clotted offensive blood passed by stool.

15th.—Much the same; faint at times; motions very offensive, like walnut-pickle; pulse 72; small, soft; tongue clean and moist; some griping.

Cal. gr. j. noct. Ol. Ricini, ʒss. p. m. rep. mist.

17th.—No bleeding nor syncope; very feeble; motions brownish yellow, no blood; pulse 90; some perspiration; tongue clean, moist, exsanguine.

Repetatur mistura.

19th.—No bleeding; motions yellow; gains strength.

23d.—Feels quite well, and returns to his employment.

Sept. 24th.—Has always had weak digestion since last report, but has never applied for advice until to-day; has also had occasional pains in the loins, and has lost flesh; eat suet-pudding yesterday for dinner, and drank two glasses of white wine; was seized about 4 p.m. with violent pain in the epigastrium, increased on moving; relieved by warmth; no sickness; bowels constipated, though he has taken rhubarb; skin cold and clammy; pulse small and weak; tongue clean.

Magn. Carb. P. Rhei aa. gr. v. Aq. Piment. 3j. Tr. Rhei 3j. Dec. Aloes 3liij. sextis horis.—Ol. Ricini ʒss. Tr. Opii gutt. x. statim.

25th.—But little sleep; and but little cramp while lying on his back; free from lumbar pain; four motions, the first hard, the others loose, and of brown colour; abdomen tense, and somewhat tender on pressure; no vomiting; some thirst; tongue coated; pulse small, quick, and rather sharp.

Pulv. Dov. gr. v. n. et m.—Foment. repetatur.—Mistura primo mane.

27th.—Spasms at times, flatulence, and tension of abdomen; nights restless; appetite bad; pulse quick and irritable; several liquid motions, with some flatus; countenance pale; fixed pain in left hypochondrium, not increased on pressure.

Ol. Ricini ʒss. p. m. repetantur Pulv.

28th.—Rests better; spasms at times; pain continues in left side; abdomen much distended with flatus, which was relieved by the following draught:—

Tr. Opii grt. v. Spt. Æther. Nitrici grt. xx.
Mist. Camph. ʒiiss.

Repetantur haust. ter die.

29th.—Spasms greatly gone off; pain continues fixed in left hypochondrium, and is slightly increased upon pressure; abdomen less tense; tongue coated; pulse small, but slower.

Repetantur Ol. et Mist. Vesic. lateri sinistro.

Oct. 2d.—Pain and spasms entirely removed; abdomen still tense at times, which tension, however, the mixture, by expelling wind, removes; looks better; rests well; appetite improving; pulse small, regular; tongue less coated and moist.

Perstat.

6th.—No return of spasms; great prostration of strength; no appetite; bowels costive.

Mag. Sulph. ʒiiss. Inf. Gent. Co. ʒiiss. bis die.

27th.—Has gained strength: appetite has returned; he does not complain of any thing, and resumes his employment this day.

May 29th, 1830.—Much better than usual until within the last few days, (I saw him walking in the street very quickly, and looking tolerably well, though pale, but a few days ago,) since which he has occasionally experienced pains in his limbs, and on the 27th (till which day he continued at his work) spasms and pains in the belly, which yesterday increased; so that he took salts, and was several times moved without relief. Yesterday the abdomen swelled from the navel to the pubes, became very tense and tender on pressure; there was nausea and occasional hiccough, but no vomiting; face exceedingly shrunk, pinched, and pale; body greatly emaciated, and skin covered with cold sweat; pain at side, and hurried breathing; great anxiety and faintness; pulse small, and scarcely perceptible; tongue deeply coated, and dry; constant thirst; urine passed freely yesterday, sparingly to-day; twenty leeches were applied to the abdomen with some, but very slight relief; two grains of opium, with six of calomel, were taken with castor oil, without procuring a motion; injections, with sulphate of magnesia, were thrown into the rectum, but were immediately returned, untinged with fecal matter; and quite exhausted, he died at 7 p.m. this day.

Dissection.—*Thorax*: Integuments green; about ʒv. ounces of serum in right side thorax; right lung oedematous, and air-cells dilated; the pleura covering its inferior lobe had a thin layer of coagulable lymph, recent and easily separable upon its surface; left lung fragile, and universally adherent to the pleura costalis by old, short, membranous adhesions. Heart healthy; small.

Abdomen.—Greatly distended with gas; peritoneum covering the parietes of the ab-

domen thickened, and more than usually vascular; about two pints of sero-purulent fluid in the abdomen. Stomach nearly empty; its upper surface externally healthy, its under surface much thickened; upon opening it, the mucous membrane was found extensively diseased; on the posterior surface it seemed entirely destroyed, and its place supplied by coagulable lymph, which was deposited unevenly in different parts, giving it a granular appearance; in some places, ulceration had taken place, in two entirely through all the coats, in four nearly through them all, and in one, which was oval and larger than the rest, superficially; towards the oesophagus the interior of the stomach was of a blackish colour; towards the centre it was more than usually vascular, and elsewhere it had an ochre colour; the ulcers were smooth towards the edges, and the contents of the stomach were prevented from escaping by the firm adhesion of the posterior portion of the lesser omentum; pylorus healthy; peritoneum covering the jejunum and ileum very vascular, in some parts, and here and there, covered with a thin and easily separable layer of lymph; no adhesion. The calibre of the jejunum, ileum, and descending colon, very much distended with air; ascending and transverse colon very much contracted, though in structure healthy. Other abdominal viscera healthy.

WORCESTER DISPENSARY.

Inflammation and Ulceration of the Penis.
To the Editor of the London Medical Gazette.

SIR,

THE inclosed case of inflammation and ulceration of the penis may not be unworthy the columns of your highly valuable publication.—I am, Sir,

Your obedient servant,

JOHN GREENING, M.R.C.S.
Surgeon to the Worcester
Dispensary, &c. &c.

Bridge Street, March 26th, 1831.

J. W. æt. 35, of a plethoric habit, came to consult me September 14th, 1829, for a superficial ulcer situate on the upper part of the glans penis, beneath the prepuce: a day or two ago he had had connexion with a woman of the town. At this time the ulcer did not assume the appearance of pox.

Sumat. Haust. Carth. ʒij. statim, and to use the following wash to the parts—
Hyd. Submur. ʒj. Aq. Calcis, ʒiv. m̄x.

15th.—Hæbeat Olei Ricini, ʒj. b. s.

16th.—Bowels open.

17th.—He sent for me; his penis had swollen to a considerable size; inflammation great and painful, the ulcer assuming a sloughy appearance.

Cont. Olei Ricini, ʒj. b. s. Sumat primo mane Hyd. Submur. gr. iv.; live

low; foment the parts frequently with warm water, and apply a cataplasm to the ulcer.

18th.—Rept. Haustus Carth. 3ij.

19th.—Applic. Hirudines, viij. parti affect. Cont. Catapl. ut antea.

20th.—Better; bowels open; pain less.

21st.—Inflammation very much diminished. 5 o'clock p.m. he sent for me; the arteria dorsalis penis had given way, and had been bleeding for some time, which caused him to faint; the quantity which he had lost filled the half of a chamber-pot, he having encouraged the bleeding by fomentations, considering, as he thought, the more it bled the greater relief he should find: I stopped it by plugging the ulcerated parts with a piece of lint and sponge, at the same time bandaging the penis, and tying up towards the pubes, securing it there by a roller fast round his body.

Habeat Pil. Opii, gr. ij. hora somni. To lessen the quantity of bed-clothes, and to be kept quiet.

22d.—He has had several rigors during the night; the parts are much cooler than yesterday; the pain less; and upon the whole, he is better. I removed the bandage from around his body for him to empty his bladder, which he did freely, securing it as before.

23d.—Pressure over the pubes gives pain.

Applic. Hirudines, x. Cont. Mist. Carth. Applic. Cataplasma.

24th.—Pain still continues.

Rept. Hirudines, ut heri.

25th.—Removed the lint and sponge; hæmorrhage has ceased; pain less; pulse 85; some degree of fear; thirsty.

Capt. Ol. Ricini, 3j. statim; and in the day to take the following mixture. R Liquor Ammon. Acet. 3j. Spt. Ætheris Nit. 3iij. Pulv. Tragac. comp. 3j. Aquæ puræ. 3iv. ft. mist. sumat partem tertiam quarta quaque hora.

26th.—Continue medic. ut heri.

27th.—Pulse 78; better.

28th.—Still improving; the inflammation is greatly reduced; he complains of headache for want of sleep.

Rept. Mist. Pep. 3vj. and take the following pills, one every night. Pil Hydrarg.

3j. Pulv. Opii, gr. iiij. Conf. Rosa, q. s. ft. misce et div. in pilulas iiij.

29th.—Much the same.

30th.—Several pieces of slough thrown off. Go on with the opening mixture, and take the following drops in the day.

Acid Nitric, 3ii. Tinct. Cinchona c. 3iv.

Aquæ, 3iss.—Cont. Cataplas. et Fotus; which plan of treatment he followed till the 14th of October, when, from having taken a violent cold, the inflammation returned.

Ordered the following lotion to be used to the parts frequently.

Ammon Muriat, 3ij. Spt. Vini rect. 3ij. Aquæ puræ, 3vj. ft. lotio. Omit Gutte.

October 17th.—He has had rigors; inflammation extending all along the substance of the penis; matter discharging through the ulcerated parts.

Applic. Cataplasma. Rept. Haust Carth. 3ij. Low diet.

20th.—Better; the quantity of matter discharged in each poultice is about a table-spoonful; tongue clean; no difficulty in making water. Ordered to take rice or bread puddings, and to continue the fomentations and poultices.

30th.—Going on well.

November 3d.—Much the same. I passed a probe along the ulcerated parts up to a fistulous opening, which led to the pubes.

6th.—The orifice has partly closed; matter has collected near the pubes. I made an opening, about an inch and a half in length, which relieved him.

Omit Lotio. Rept. Pilulas. Cont. Cataplasma.

21st.—Continued well till this day, when he had a return of hæmorrhage; the quantity of blood lost was much less than before it was stopped by compresses.

30th.—A large piece of slough thrown off; bowels open; mouth a little sore. The object I had in giving the mercury at this stage of the disease was, to put a stop to the effusion of lymph, and to prevent alterations of structure.

December 4th.—Better; free from pain; the incision has healed.

12th.—He has taken a slight cold; and a little discharge. Ordered to use the warm water night and morning, to use the following wash, and to wrap the parts in flannel.

R Zinci Sulphat. Plumb. Superacet. a. a. gr. x. Aquæ, 3iv. ft. Lotio. Sumat Olei Ricini. 3vj. statim.

22d.—Discharged cured.

September 14th, 1830.—Continues well. He informs me that he has had no erection since he put himself under my care.

Remarks.—The ulcerated parts are now quite healed. The penis puts on a curious form; at the upper part, near the pubes, there is a deep excavation left by the incision; beneath the prepuce there is another, into which I can pass the end of my thumb so as to completely bury it underneath the parts. At the lower part there is a preternatural orifice of the urethra; the urethra does not open at the projecting extremity of the glans penis, but underneath it, where the frænum should be situated. The frænum is wanting.

W. Wilson, Printer, 37, Skinner-Street, London.

THE LONDON MEDICAL GAZETTE,

BEING A
WEEKLY JOURNAL

OF
Medicine and the Collateral Sciences.

SATURDAY, APRIL 16, 1831.

OBSERVATIONS
ON
CALCULOUS DISEASES.

By B. C. BRODIE, F.R.S.

As delivered by him in his Surgical Lectures.

II.—*Renal Calculi.*

THE minute concretions which I described in the former lecture seem to be deposited by the urine in the bladder: I now call your attention to those concretions which are formed in the kidney, and which are denominated *renal calculi*.

There are various kinds of renal calculi, differing from each other in their chemical composition. Some of these are of frequent, and others are of rare occurrence.

1. The most common variety is that which is composed of pure lithic acid. These are generally of a round or oval form, of a light brown colour, and tolerably smooth on the surface.

2. The next in order of frequency are those composed of oxalate of lime. These are of a dark colour, and usually of an irregular figure, with a number of small prominences on the surface; having something of the appearance of a mulberry, and hence denominated *mulberry calculi*.

3. The triple phosphate of ammonia and magnesia is sometimes deposited in the kidney, but, as far as I know, a renal calculus is never composed entirely of this salt. Where a calculus has remained lodged in the kidney for a considerable time, the triple phosphate is found to constitute its external layer,

but the nucleus is either lithic acid or oxalate of lime.

4. Calculi of phosphate of lime are occasionally formed in a diseased kidney, probably not from the urine, but from the other secretions of the affected organ. I have in my collection of preparations of morbid anatomy, two kidneys completely filled with calculi of this description. A gentleman voided by the urethra a small renal calculus, composed of the oxalate of lime. From this time he had symptoms indicating disease in one kidney. A year or two after the first calculus had come away, he voided another calculus. But this was quite different from the former one, being composed of the phosphate of lime. The patient ultimately died of extensive disease in the kidney.

The *renal calculi*, which are composed of lithic acid, occur for the most part in those individuals who have led luxurious and indolent lives; beginning to form, in most instances, at about forty years of age. Many persons, who are subject to the formation of these calculi, are also liable to gout. A patient may have been in the habit of voiding lithic acid calculi; he becomes affected with the gout, and the formation of calculi ceases. But, at other times, the two diseases go on together. Some persons void a great number of these calculi in succession. I am almost afraid to say how many I have known to be voided by the same individual; but I should think some hundreds. We find them of various sizes, from that of a pin's head to that of a horse-bean.

Calculi of oxalate of lime are much more rare than those of the lithic acid. Fewer individuals are liable to the

former than to the latter; besides which, where the disposition to form them exists, the oxalate of lime calculi are not formed in the same numbers as the uric acid calculi. A patient may void one of these calculi, and never void another; or he may void a second after the lapse of many years. In one instance, however, in examining a body after death, I discovered as many as five or six in one kidney. They had induced extensive suppuration of this organ, and complete disorganization of its glandular structure, and this disease in the kidney was the immediate cause of death.

Mr. Earle has published a paper, in the *Medico-Chirurgical Transactions*, in which he endeavours to show, that the formation of renal calculi may frequently be traced to a local injury affecting the loins and kidney. I would advise you to read the paper itself, which contains much interesting information. The only observations which I have to offer on it at present are those which follow:—

First.—Where a disposition to form calculi exists, a mechanical injury may (I doubt not) determine the disease to one kidney rather than to the other; but this disposition is so manifestly connected with a peculiar state of the system, and peculiar habits of life, (especially in cases of uric acid calculi,) that we seem to be scarcely justified in regarding it as arising altogether from the agency of a local cause.

Secondly.—It is not improbable that, in some cases in which a mechanical injury has preceded the formation of calculi in the kidney, the first effect of it has been to occasion disorganization of the glandular structure and abscess, and that the calculi generated under these circumstances have been composed of the phosphate of lime, derived, not from the natural secretion of the urine, but from the morbid secretions of the diseased part; and corresponding to the concretions of the same kind which are not unfrequently met with in other diseased textures.

When a small calculus is formed in the kidney, it usually occasions some degree of pain in the corresponding loin, and the urine is observed to be tinged with blood, especially after any jolting exercise. These symptoms, however, are by no means constant, and it often happens that the patient

has no suspicion of his labouring under the disease until the calculus begins to descend from the kidney into the bladder. Even in its passage along the ureter, if the calculus be very small it may be productive of little or no inconvenience. If, however, it be large enough to occupy the whole diameter of the ureter, or in any degree to stretch or distend it, there is considerable suffering. When the calculus first enters the ureter, there is usually pain, referred to the region of the kidney and the groin. The pain is often very severe, and in that case attended with sickness and vomiting, prostration of strength, cold extremities, a feeble pulse, and a pallid countenance; in short, the patient is in what is commonly called a state of collapse. These symptoms are followed by pain referred to the inside of the thighs and the testicle; and frequently the testicle is drawn upwards to the groin by a spasmodic contraction of the cremaster muscle: no relief is experienced until the calculus has escaped from the lower orifice of the ureter, and entered the bladder; but as soon as this has happened, the patient's tortures (for they truly deserve that appellation) are at an end. The time occupied by the passage of the calculus along the ureter varies in different cases, according to the dimensions and figure of the calculus, and the impulse which it receives from the current of urine behind it. Sometimes the calculus may reach the bladder almost immediately; at other times it may be lodged in the ureter for many hours, or even for two or three days. Where the passage of it is thus protracted, the parts, to which the pain is sympathetically referred, become tender to the touch, and the testicle not unfrequently is actually inflamed and swollen; the inflammation of it continuing for some time after the cause which produced it has ceased to operate.

It will not be improper for me in this place to notice a set of cases which you will occasionally meet with in practice, especially in the higher classes of society, which bear considerable resemblance to those which I have just described, although the cause of the symptoms is wholly different. In the cases, to which I allude, the patient is usually one who has led a luxurious life, and of whom it may be supposed that he has a right to suffer from the gout. He complains of

pain at first in the region of the kidney followed by pain extending downwards in the direction of the spermatic cord to the groin. Afterwards, without any diminution of the other symptoms, there is a frequent desire to void the urine, and the effort made in voiding it is attended with considerable, and sometimes with violent suffering. At the same time the urine is secreted in small quantity, it is of a deep pink colour, deposits a pink sediment, and, when tested, with litmus paper, it exhibits marks of more than usual acidity. Symptoms such as these may continue for several days, if not relieved by art; but under the administration of suitable remedies they may subside in a very few hours. First, let some blood be taken from the loin by cupping; afterwards administer from a drachm to a drachm and a half of the *vinum colchici*. This may be followed by half a drachm of the same medicine in the course of four hours, and the latter dose may be repeated in three or four hours more. A draught, composed of infusion of senna, tincture of jalap, and sulphate of magnesia, will probably complete the cure. I imagine that in these cases there is a gouty inflammation of the kidney; at least I do not see in what other manner all the circumstances belonging to them can be so well explained.

In the majority of cases, a calculus of the kidney finds its way into the bladder soon after its first formation; but in other cases it remains for a considerable time in the kidney, being at last dislodged by some accidental circumstance. For example: a gentleman somewhat advanced in years, who had observed occasionally that his urine was tinged with blood, was overturned in a carriage in which he was riding with two ladies. It was a large heavy carriage, which came to the ground with great force, causing those who were in it to be severely jolted. When, after the delay which this necessarily occasioned, he reached home, the gentleman found his bladder much distended, and he experienced a violent desire to void his urine; on his making the attempt, however, no urine flowed. There was evidently a mechanical impediment. He strained and strained, and at last the impediment gave way. A renal calculus, which seemed to have the form of one of the *infundibula* of the kidney, was projected with no small

degree of force into the chamber-pot, and the urine flowed in a full stream. In other cases, a stone, which has been long impacted in the kidney, becomes dislodged in consequence of some changes which take place spontaneously in the affected organ, independently of any mechanical injury.

A calculus retained in the kidney produces various degrees of inconvenience to the patient. Sometimes, indeed, it may be said to cause no inconvenience at all. I have seen several cases in which calculi were found in the kidney after death, the existence of which had never been suspected during the patient's lifetime. In other cases the patient complains of pain in the loins, and the urine is occasionally tinged with blood, especially after any jolting exercise, such as riding on horseback. Where these symptoms occur, you will seldom be wrong in concluding that there is a calculus in the kidney. They may, however, arise from other causes. I attended a patient, with Dr. Warren, who was affected (as the event proved) with fungus hæmatodes of one kidney, and in whom these were the only symptoms which were noticed in the early stage of the disease. In the course of time a tumor in the abdomen, in the situation of the kidney, gradually increasing to an enormous size, indicated the real nature of the malady. I have seen other cases in which the urine was tinged with blood, as I was led to suspect, in consequence of a relaxed state of the vessels of the kidney, but in which I had no opportunity of ascertaining by dissection how far the suspicion was well-founded.

The dissection of the bodies of those who die labouring under calculi of the kidney, throws great light on this part of pathology. In the early stage of the disease, small portions of calculous matter are found imbedded in the *tubuli uriniferi*, where they form what are denominated the *mamillary processes*. Afterwards the small calculus is seen partly imbedded in the mamillary process, partly projecting into the *infundibulum* belonging to it. Preparations demonstrating the facts which have just been mentioned, are preserved in Dr. William Hunter's Museum, which was formerly in Great Windmill-Street, and which is now in Glasgow. By-and-by the calculus becomes altogether dis-

former than to the latter; besides which, where the disposition to form them exists, the oxalate of lime calculi are not formed in the same numbers as the uric acid calculi. A patient may void one of these calculi, and never void another; or he may void a second after the lapse of many years. In one instance, however, in examining a body after death, I discovered as many as five or six in one kidney. They had induced extensive suppuration of this organ, and complete disorganization of its glandular structure, and this disease in the kidney was the immediate cause of death.

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Secondly.—It is not improbable that, in some cases in which a mechanical injury has preceded the formation of calculi in the kidney, the first effect of it has been to occasion disorganization of the glandular structure and abscess, and that the calculi generated under these circumstances have been composed of the phosphate of lime, derived, not from the natural secretion of the urine, but from the morbid secretions of the diseased part; and corresponding to the concretions of the same kind which are not unfrequently met with in other diseased textures.

When a small calculus is formed in the kidney, it usually occasions some degree of pain in the corresponding loin, and the urine is observed to be tinged with blood, especially after any jolting exercise. These symptoms, however, are by no means constant, and it often happens that the patient

has no suspicion of his labouring under the disease until the calculus begins to descend from the kidney into the bladder. Even in its passage along the ureter, if the calculus be very small it may be productive of little or no inconvenience. If, however, it be large enough to occupy the whole diameter of the ureter, or in any degree to stretch or distend it, there is considerable suffering. When the calculus first enters the ureter, there is usually pain, referred to the region of the kidney and the groin. The pain is often very severe, and in that case attended with sickness and vomiting, prostration of strength, cold extremities, a feeble pulse, and a pallid countenance; in short, the patient is in what is commonly called a state of collapse. These symptoms are followed by pain referred to the inside of the thighs and the testicle; and frequently the testicle is drawn upwards to the groin by a spasmodic contraction of the cremaster muscle: no relief is experienced until the calculus has escaped from the lower orifice of the ureter, and entered the bladder; but as soon as this has happened, the patient's tortures (for they truly deserve that appellation) are at an end. The time occupied by the passage of the calculus along the ureter varies in different cases, according to the dimensions and figure of the calculus, and the impulse which it receives from the current of urine behind it. Sometimes the calculus may reach the bladder almost immediately; at other times it may be lodged in the ureter for many hours, or even for two or three days. Where the passage of it is thus protracted, the parts, to which the pain is sympathetically referred, become tender to the touch, and the testicle not unfrequently is actually inflamed and swollen; the inflammation of it continuing for some time after the cause which produced it has ceased to operate.

It will not be improper for me in this place to notice a set of cases which you will occasionally meet with in practice, especially in the higher classes of society, which bear considerable resemblance to those which I have just described, although the cause of the symptoms is wholly different. In the case, to which I allude, the patient is usually one who has led a luxurious life, and of whom it may be supposed that he has a right to suffer from the gout. He complains of

pain at first in the region of the kidney followed by pain extending downwards in the direction of the spermatic cord to the groin. Afterwards, without any diminution of the other symptoms, there is a frequent desire to void the urine, and the effort made in voiding it is attended with considerable, and sometimes with violent suffering. At the same time the urine is secreted in small quantity, it is of a deep pink colour, deposits a pink sediment, and, when tested, with litmus paper, it exhibits marks of more than usual acidity. Symptoms such as these may continue for several days, if not relieved by art; but under the administration of suitable remedies they may subside in a very few hours. First, let some blood be taken from the loin by cupping; afterwards administer from a drachm to a drachm and a half of the *vinum colchici*. This may be followed by half a drachm of the same medicine in the course of four hours, and the latter dose may be repeated in three or four hours more. A draught, composed of infusion of senna, tincture of jalap, and sulphate of magnesia, will probably complete the cure. I imagine that in these cases there is a gouty inflammation of the kidney; at least I do not see in what other manner all the circumstances belonging to them can be so well explained.

In the majority of cases, a calculus of the kidney finds its way into the bladder soon after its first formation; but in other cases it remains for a considerable time in the kidney, being at last dislodged by some accidental circumstance. For example: a gentleman somewhat advanced in years, who had observed occasionally that his urine was tinged with blood, was overturned in a carriage in which he was riding with two ladies. It was a large heavy carriage, which came to the ground with great force, causing those who were in it to be severely jolted. When, after the delay which this necessarily occasioned, he reached home, the gentleman found his bladder much distended, and he experienced a violent desire to void his urine; on his making the attempt, however, no urine flowed. There was evidently a mechanical impediment. He strained and strained, and at last the impediment gave way. A renal calculus, which seemed to have the form of one of the *infundibula* of the kidney, was projected with no small

degree of force into the chamber-pot, and the urine flowed in a full stream. In other cases, a stone, which has been long impacted in the kidney, becomes dislodged in consequence of some changes which take place spontaneously in the affected organ, independently of any mechanical injury.

A calculus retained in the kidney produces various degrees of inconvenience to the patient. Sometimes, indeed, it may be said to cause no inconvenience at all. I have seen several cases in which calculi were found in the kidney after death, the existence of which had never been suspected during the patient's lifetime. In other cases the patient complains of pain in the loins, and the urine is occasionally tinged with blood, especially after any jolting exercise, such as riding on horseback. Where these symptoms occur, you will seldom be wrong in concluding that there is a calculus in the kidney. They may, however, arise from other causes. I attended a patient, with Dr. Warren, who was affected (as the event proved) with fungus hæmatodes of one kidney, and in whom these were the only symptoms which were noticed in the early stage of the disease. In the course of time a tumor in the abdomen, in the situation of the kidney, gradually increasing to an enormous size, indicated the real nature of the malady. I have seen other cases in which the urine was tinged with blood, as I was led to suspect, in consequence of a relaxed state of the vessels of the kidney, but in which I had no opportunity of ascertaining by dissection how far the suspicion was well-founded.

The dissection of the bodies of those who die labouring under calculi of the kidney, throws great light on this part of pathology. In the early stage of the disease, small portions of calculous matter are found imbedded in the *tubuli uriniferi*, where they form what are denominated the *mamillary processes*. Afterwards the small calculus is seen partly imbedded in the mamillary process, partly projecting into the *infundibulum* belonging to it. Preparations demonstrating the facts which have just been mentioned, are preserved in Dr. William Hunter's Museum, which was formerly in Great Windmill-Street, and which is now in Glasgow. By-and-by the calculus becomes altogether dis-

entangled from the tubuli and mamillary process, and escapes into the infundibulum and pelvis of the kidney. Probably it is now propelled by the current of the urine along the canal of the ureter, into the bladder; otherwise, remaining in the kidney, it increases in size, in consequence of fresh deposits of calculous matter from the urine. Sometimes it grows so large as to occupy the whole of the pelvis of the kidney, extending also into the infundibula, assuming the form of the parts in which it is lodged, and bearing some resemblance, in its shape and general appearance, to a piece of maderpore. In these cases, the outer layers are very commonly composed of the triple phosphate of ammonia and magnesia, while the nucleus is either lithic acid or oxalate of lime—more frequently the former.

It seldom happens that the excretory duct of the kidney is completely obstructed; but when it is so, the necessary consequence is that the urine becomes accumulated in the infundibula, and that these become dilated to a large size, forming membranous cysts; while the glandular structure of the organ is expanded, and in a great measure absorbed, from the pressure which is thus exercised upon it. In some cases you find at last the kidney converted into a large membranous bag, on the surface of which scarcely a vestige of the glandular structure is perceptible, while the interior of it is composed of a number of cells communicating with each other, and all containing urine. In other cases you find the whole kidney wasted, the only remnant of it being a membranous substance adhering to an irregularly-formed calculus. Of course, under these circumstances, no secretion of urine can have taken place from the diseased kidney; but the other kidney supplies its place, and, like a muscle which is called upon to perform double its usual duty, it becomes increased in size in proportion.

Thus you find the kidney in one instance distended into a large bag, and in another wasted and reduced to the smallest dimensions. If you will take the trouble to consider what must happen to a kidney before it can become thus wasted, you will, I doubt not, agree with me in thinking that these two different conditions belong to the same series of changes. The

urine is collected in the pelvis and infundibula; the glandular structure becomes gradually absorbed; the secretion of urine ceases. Then the urine previously accumulated is absorbed in its turn, and the membranous cyst collapses and contracts, until at last it becomes a mere capsule, in which the calculus remains imbedded. An enlarged kidney forms a tumor, which can be felt distinctly in the abdomen of a thin person. There is reason to believe that tumors having this origin occasionally disappear; and what I have just mentioned affords a reasonable explanation of this phenomenon.

A calculus lodged in the kidney not unfrequently induces ulceration and suppuration of that organ. It may be under these circumstances that the pus escapes with the urine, and passes into the bladder. Then there is little or no constitutional disturbance. The symptoms are all local, and are often such as to draw the attention of the surgeon to the bladder rather than the kidney. A lady consulted me concerning what was supposed to be an affection of the bladder. She had frequent desire to void the urine; she voided it, of course, in very small quantity at each time; she complained of a cutting pain referred to the neck of the bladder, and the urine deposited what appeared at first to be a muco-purulent secretion, but which afterwards had all the characters of true pus, like that from an abscess. Things had gone on thus for two or three years, when the patient was attacked by other symptoms, such as indicate the passage of a calculus along the ureter. A large renal calculus (I believe a mulberry one) came away, and the original symptoms were relieved. They were not, however, entirely removed, as the urine continued to deposit a very small quantity of pus afterwards.

There are other cases in which a calculus impacted in the kidney produces abscess, having no outlet by which it can discharge its contents into the ureter. Here there is another order of symptoms, very different from those which have been just described, but not different from those which are met with in cases of abscess of the kidney arising from other causes. There is pain referred to one loin, extending to the groin, sometimes upwards towards the scapula, or forward across the abdomen;

not in general aggravated by exercise. Not unfrequently there is an irritable state of the bladder, though this symptom does not exist in the same degree as where the pus escapes with the urine. The patient suffers from a sense of remarkable lassitude and depression, and he has occasional rigors; sooner or later he falls a victim to the malady, and the following symptoms mark his approaching dissolution. The pulse is small; there is a total incapability of mental as well as of bodily exertion, an utter listlessness and disregard of all external circumstances. The pulse becomes so feeble that it can be scarcely felt, and the extremities are cold. Sometimes there is sickness and vomiting, at other times a diarrhoea, which it is scarcely possible to check by the most powerful astringents. The urine in these cases is generally secreted in very large quantity. It is also albuminous, being rendered opaque by heat and by the addition of nitric acid. Albuminous urine is met with almost invariably where there is abscess of the kidney; but you are not to conclude that this alone is a certain sign of the existence of abscess. Chronic inflammation of the kidney may cause the urine to be albuminous, although there is no abscess; and an admixture of even a small quantity of blood with the urine will produce the same effect.

In a few rare instances, an abscess connected with calculi of the kidney makes its way backwards, presenting itself and bursting in the loins. Some of you will remember a case of this kind which occurred in this hospital not long since. A woman died, labouring under an abscess in one loin. On examining the body after death, the abscess was traced to the kidney of the same side, manifestly having had its origin in a large collection of irregularly-shaped calculi. In the memoirs of the French Academy of Surgery, you will find a paper, in which the author describes two cases of renal abscesses which had burst in the loins, in each of which he succeeded in extracting some calculi through the orifice of the abscess. In one of them, after the removal of the calculi, the abscess healed, and the cure was complete. In the other a fistula remained ever afterwards; in all probability in consequence of some calculi being still lodged in the part. Some of the old surgeons have spoken of an

operation for the extraction of calculi from the kidneys. The proposal is absurd and dangerous, if made with a reference to ordinary cases of renal calculi, where no abscess exists. But nephrotomy (as it has been termed) is very practicable where nature, by the formation of an abscess, has pointed out the exact situation of the calculi.

I must now call your attention to the treatment of renal calculi.

You will frequently be consulted by persons who are voiding a number of small lithic acid calculi in succession. Those already formed cannot be dissolved. The best thing that can happen is, that they should pass into the bladder, along the canal of the ureter, and out of the bladder by the urethra. But you may do much towards preventing new calculi being generated. The remedies to be employed are similar to what I have mentioned as applicable to cases in which the urine deposits the lithic acid sand. Purgatives and alkalies may be administered with advantage; and the colchicum, where there is a disposition to gout. Attention to diet and mode of life are of as much importance as medicine. But it is needless for me to say more on the subject at present: I refer you to the observations which I made in the last lecture.

As to the oxalate of lime, or mulberry calculus, we can do little, probably nothing, in the way of prevention. Fortunately, this defect in our art is of less consequence, as the formation of this kind of calculus is much less likely to recur than that of the lithic acid calculus.

The formation of the phosphate of lime calculus in the kidney always indicates disease of that organ; probably abscess; and it is this disease which demands our first attention. However, we cannot be wrong in such cases if we exhibit the mineral acids, as we should do if any kind of phosphatic calculus were being formed in the bladder.

The passage of a renal calculus from the kidney to the bladder is a natural process, over which we have but little dominion. Where the pain is unusually intense, opium may be administered with advantage, but it must be given in large quantity. The patient may also use the warm bath, remaining in it an hour, or even longer. These remedies, however, only tend to the diminution of suffering. Probably drinking plenti-

fully of diluting liquors may be useful, by causing such a rapid flow of urine as will assist in the propulsion of the calculus along the ureter. I have sometimes thought that the patient has derived benefit from the exhibition of an active purgative; for example, a dose of senna, with sulphate of magnesia, and tincture of jalap.

If there are symptoms which lead you to suspect that a stone is lodged in the kidney, it is of course desirable that it should, if possible, be made to pass into the ureter before it has attained such a size as to be incapable of being conveyed along that canal into the bladder. Horse exercise, especially hard trotting, in such a case generally produces bloody urine. This shews that the calculus is made to undergo some change of position, and whatever produces this effect is, of course, favourable to its escape from the kidney. It is reasonable to suppose, that medicines which occasion a more abundant flow of urine, combined with diluting drinks, may also be useful under these circumstances. Where a calculus retained in the kidney produces considerable pain in the loins and neighbouring parts, the patient will sometimes derive benefit from local blood-letting, by cupping, or by leeches. At other times, from the application of the belladonna plaister. You may also employ setons and issues in the loins. According to my experience, however, these remedies are seldom very useful except in those cases in which disease in the kidney, and especially abscess of the kidney, has taken place as a consequence of the lodgment of the calculus. That they are sometimes eminently useful, under these last-mentioned circumstances, I cannot doubt. I have at this moment a patient under my care, who occasionally voids small calculi from the kidney, labouring at the same time under pain in the region of the kidney, with a purulent deposit from the urine, and who has derived marked benefit from a large issue, made with caustic, in the loin to which the pain is referred.

Those extreme cases, in which abscess of the kidney has no means of discharging its contents, and, in consequence, produces symptoms of general depression of the system, with a weakened circulation, and languor of body, and listlessness of mind, are, I fear, but little under the dominion of our art. We

must support the patient by stimulants and tonics, and by making as little demand upon his powers as possible; but we strive in vain against his destiny, and he certainly, sooner or later, falls a victim to his malady.

Hitherto I have spoken to you of calculi as being either lodged in the kidney, or as passing from thence to the bladder. But a calculus may be of such a size as to be stopped in its passage to the bladder, and retained in the ureter. One might suppose, that under these circumstances, the ureter would become more and more dilated, and at last burst, as the urethra bursts behind a stricture. I cannot say that this never happens; and, indeed, Morgagni quotes a case from another writer, in which there is reason to believe that such an event actually occurred. However, it does not always happen, as the following case will prove: I attended it nearly ten years ago with Mr. Merriman, of Kennington; and Mr. Merriman, jun. has lately sent me some notes respecting it. A gentleman, 64 years of age, who had been subject to the formation of renal calculi, which had afterwards come away by the urethra, was seized with one of his usual attacks, indicating that a calculus had escaped from the kidney. Instead, however, of terminating in the usual manner, the pain continued unaltered, and he ceased to void his urine. On the supposition that there might be urine in the bladder, the catheter was introduced several times, but no urine flowed. The patient became comatose, and died in a fit of convulsions eleven or twelve days after the commencement of the attack. On examining the body after death, no urine was found in the bladder. In one kidney there were several calculi: there were none in the other. In the ureter belonging to the latter, and in the upper part of that canal, there was a calculus, as it were, wedged in, of about the size of a horse-bean. It appeared, therefore, that the circumstance of one ureter being completely obstructed by a calculus, had caused a suppression of the secretion of urine in both kidneys.

A case still more remarkable occurred under the observation of my friend Mr. Travers. A patient died, having each ureter, where it arises from the pelvis of the kidney, completely obstructed by a calculus. The consequence of this double obstruction had been the same

with that of the single obstruction in the case last mentioned—namely, an entire suppression of the secretion of uricæ.

LIGATURE OF THE COMMON CAROTID.

To the Editor of the London Medical Gazette.

Elgin, March 21, 1831.

SIR,

I send you the following case of aneurism, in expectation that it will not be thought undeserving of publication in your valuable journal.

I am, sir,

Your most obedient servant,

JOHN PAUL, M.D.

Member of the Royal College of Surgeons in London, and Surgeon to Gray's Hospital, Elgin.

Jane Petrie, 28 years of age, was admitted into Gray's Hospital, under my care, May 3d, 1830, on account of a pulsating tumor on the right side of the head, extending three inches from the ear upwards, and also measuring three inches in its transverse direction, the tip of the ear being opposite its centre. Its characters were clearly and unequivocally aneurismal. The pulsations were remarkably strong, and distinctly felt over every part of the tumor; so much so that the palm of the hand, when placed on it, was even raised by their force. It was considerably elevated, soft, and yielding; so that the blood was evidently in a fluid state. The pulsations could be stopped by compressing the common carotid against the cervical vertebræ. There were several nævi materni on this side of the face, all highly vascular; the facial branch of the temporal artery leading to these, and the temporal artery itself, appeared to be enlarged, and to beat with great force; the latter communicated a peculiar whizzing sensation to the finger. The patient stated that it was nine months since the disease began, and that it had gradually increased till it assumed its existent state of high activity. She complained of distressing pulsatory pain in her head, particularly during the night; in other respects

she was in the enjoyment of good health. On the day after her admission she was bled, purged, and directed to be put on low diet; to be strictly confined to bed, to keep her head cool with an evaporating lotion, and take digitalis. By this palliative mode of proceeding the throbbing pain in her head was in some measure mitigated, and beyond this nothing could be expected. Being very stubborn in her disposition, as well as not being gifted with much intellectual capacity, it was found impossible to convince her of the absolute necessity there was to do something to control the activity of a disease which, if left to itself, would soon prove destructive to life. After remaining in the hospital a few weeks she was discharged at her own request.

She was again re-admitted, and in a more passive state of mind, being at this time more inclined to submit to whatever the urgency of her case required to be done, either for the prolongation of her life or for the diminution of suffering from the intolerable pulsatory pain in her head. On the 29th of July, with the able assistance of my excellent friend, Mr. Liston, and in presence of several other medical gentlemen, I passed a ligature round the common carotid, immediately above the crossing of the omo-hyoideus muscle, when all pulsation instantly ceased in the aneurismal tumor and temporal artery. In the dissection, the *per vagum* came into view, but not the internal jugular. In the evening she expressed herself as being quite easy. The right side of the face was greatly paler than the left. The nævi had shrunk. The pulse, which generally beat 82 in a minute, was only 64. Pressure was applied over the tumor, and also over the left temporal artery. The ligature came away on the 15th day, and in a few days afterwards the wound was completely united. At this time some faint pulsation was felt in the lower part of the tumor, and a slight thrill in the temporal artery. After a few days the pulsation became stronger and more extended, but never very active; and it gradually confined itself to a smaller space. She had a severe attack now of cynanche tonsillaris, which terminated in abscess of the right tonsil. After the abscess broke there was considerable purulent discharge, tinged with blood, for several days. On

one occasion, four or five ounces of blood were thrown up from the erosion of a small vessel in the ulcerated tonsil. By the use of gargles and tonics the sore in the throat very soon healed. On the evening of October 8th, after the throat was entirely well, with the exception of a slight enlargement of the right tonsil, she threw up, in the course of one or two minutes, twenty-five ounces of florid blood; and in the act of vomiting she was almost suffocated, and immediately became exceedingly faint, her pulse being a mere thread. After swallowing some wine she soon rallied, though she continued very feeble for several days. She had no cough, or uneasiness of any kind in any part of her chest, either before or after this vomiting of blood. There was after this no farther constitutional disturbance. She remained in the hospital till February 26th, 1831, when she was discharged with very little remains of the tumor, the greater part of it having shrunk, and a very feeble pulsation, extending only one inch upwards from the ear and scarcely half an inch transversely. A compress and bandage were kept constantly and tightly applied during her sojourn in the hospital.

Although, in the case now briefly detailed, there was no pulsation to point out the entrance of any artery into the tumor except the temporal, yet there could be no doubt but other vessels did enter it; thus constituting aneurism by anastomosis. Serious objections, I am aware, have of late been raised against the application of ligature to the common carotid for aneurism on the scalp and face, on account of the very free anastomosis of the arteries of these parts. The preferable plan, I admit, is to surround the aneurismal swelling, when so situated, with ligatures; but in this case, on account of the immense surface involved in the disease, such a mode of procedure was deemed totally impracticable. There was, therefore, no alternative left me but to cut off as much as possible the supply of blood, by tying the common carotid; and my expectations of success have been fully realized, for, if it cannot be said that the disease has been completely cured, it has been so much arrested that there is little chance of its ever giving the patient any farther trouble; or, at all events, it is brought to that state which will now, should

there be occasion, readily admit of its being included within ligatures. So completely, indeed, did the circulation appear to be arrested, both in the tumor and temporal artery, for the first thirteen or fourteen days after the operation, that no pulsation (not even a thrill) could be felt in either the one or the other; and during this time, I think, the tumor might have been opened without any risk of hæmorrhage, and the sac filled with lint, in order to have induced inflammation; and thus to have effectually ensured the patient against any chance of farther progression or even continuance of aneurismal action; and to me it is a question whether, in a similar case, this should not be done, for the objection to such practice can only be grounded on the danger of the inflammation running too high; and this danger surely cannot be so great as when ligatures are used. The result of the case, then, clearly shows that tying the common carotid artery for aneurism on the scalp and face, is not always to be abandoned; on the contrary, I suspect that it will often be found highly serviceable—at one time effecting a complete cure, at another controlling the disease in such a manner that it shall remain stationary, or bringing it to a condition suitable for the application of ligatures.

ANOMALOUS CASE OF INTERMITTENT FEVER.

To the Editor of the London Medical Gazette.

SIR,
SHOULD the following anomalous case of intermittent fever possess sufficient interest, its insertion in the Medical Gazette will oblige, sir,

Most truly yours,
JAMES PICKFORD.

Cavendish-Place, King's-Road,
Brighton, March 26, 1831.

On the 12th February last I was sent for to see a delicate young lady, between 18 and 19, who was then suffering from a violent diarrhœa, attended with griping, which had continued for the last six or seven days without intermission, during which time, as well as also during the previous three months, she had lost flesh considerably, and acquired a proportionate degree of listlessness

and despondency. Her pulse was 76, and feeble; tongue pale, but clean; appetite good; pressure upon the abdomen produced neither pain nor uneasiness; catamenia regular; countenance extremely sallow.

The history furnished me was, that in November 1830, after having been present the preceding evening at a ball in one of the inland counties, where she became heated from dancing, she imprudently travelled up to town at a rapid pace with the carriage windows down; and that scarcely had she entered her father's house before she felt exceedingly giddy, and next complained of acute pain on the left side of the forehead. The former was attributed to the long journey and quick travelling, and the latter to the circumstance of having caught cold from the windows of her carriage not being closed. The forehead was bathed with Eau de Cologne, and after a few hours she got relief, but next evening the same pain returned, continued a certain length of time, and then again went off. Becoming worse, she was seen by two gentlemen of eminence in London, who, in the early part of February last, sent her to Brighton, for the purpose of shower-bathing, directing her at the same time to continue the remedies prescribed by them, which consisted of sulph. Quinin. and aromatic bitter infusions. But a few days after her arrival at Brighton, and before she had commenced the bath, a diarrhoea set in, for which I was ultimately applied to. I should also add, that after the purging commenced, the neuralgic affection entirely ceased: I was therefore cautious in not checking too suddenly the former, and with this view directed for her, chalk draughts, with aromatic confection; carraway water, and five drops of laudanum in each: one to be taken occasionally, and at bed-time two grains of blue pill, with three of extract of hemlock. Her diet, which had consisted of rice milk, meat, vegetables, and mulled claret, was restricted to plain roast or boiled meat, spiced beef-tea, and the claret, with which latter she was unwilling to part.

The first draught checked the purging altogether; no other medicines were therefore given that day except the pill at bed-time.

13th.—Six alimy and bilious dejections; the chalk draughts were again given, and the purging again stopped.

14th.—No stool. To take a chalk draught at bed-time.

15th.—No stool. To take a teaspoonful of castor oil to-morrow morning, if no evacuation take place before then.

16th.—Took the oil this morning, and has already (12 o'clock) had eight stools of the same character as before. The following draught was now prescribed for her.

R Infus. Gentian, comp.
Mist. Camphor, aa. f. 3v.
Tinct. Rhei. f. 3ss.
Tinct. Opii, gtt. v. M. ft. haustus statim sumendus.

17th.—No stool. To continue the above draught twice during the day, but without the Tr. Opii.

18th.—Six stools. To substitute mulled port wine for the claret, and to take neither fish, cheese, nor rice milk.

R Mist. Camphor, f. 3x.
Tinct. Opii, gtt. vj.
Conf. Aromat. 3ss. M. ft. haustus statim sumend.

19th.—The purging was not entirely checked yesterday afternoon, and this morning she has already had two motions.

R Conf. Aromat.
Conf. Opiat. aa. gr. xv.
Tinct. Cinchon, comp. f. 3j.
Mist. Camphor, f. 3x. M. ft. haustus bis die sumendus.

20th.—No stool since yesterday morning.

21st.—Six stools this morning. It now became pretty evident that the purging put on a periodical type, and, upon closely investigating the matter, it appeared that every other morning, whilst in bed, the patient was seized with acute pain in the bowels, which lasted for about half an hour, and then terminated in purging. The number of evacuations was generally from six to eight, all of which occurred in the space of three hours; so that after mid-day she rarely had any, with one or two exceptions. I also now first learnt that she had had "odd sort of attacks," generally every afternoon about five o'clock, for nearly three months previously to the neuralgic affection coming on, the nature of which were first "chilliness, and sometimes faintings;" after which she again became "warm and comfortable." About this

time she was also first observed to look "bilious," and grow thinner. For this, it seems, she had no medical advice, it not being considered of much importance. Next supervened the pain in the supra orbital nerve, and ultimately this gave place to diarrhoea. Under these circumstances I determined to treat the bowel affection as dependent on intermittent fever, and accordingly prescribed the following, with strict injunctions that, on those mornings when the purging was expected, she should take one of the draughts in bed an hour before the time at which the pain usually came on (nine o'clock), and should remain in bed an hour beyond her usual time of getting up.

R Sulph. Quin. gr. iij.
Acid. Sulph. Dilat. ℥ss.
Mist. Campher, f. ʒi.
Conf. Aromat.
Conf. Opia. an. gr. iij.
Tint. Cinchon. Comp. f. ʒi. M. ft.
haust. bis quotidie sumend.

22d.—No stool.

23d.—No stool. Took the draught at 8 A.M. in bed.

24th.—Two copious formed dejections.

25th.—No stool. Took the draught at 8 A.M. in bed. The aromatic and opiate confections are now omitted.

26th.—No stool.

27th.—No stool. Took the draught in bed at 8 A.M. To take the following pill at bed-time to-night.

R Pil. Hyd. gr. i.
Pil. Rhei. Co. gr. iv. M.

28th.—No stool to-day, but had one formed dejection last evening, on which account the pill was not taken.

March 1st.—One formed dejection. Took the draught in bed at 8 A.M.

2d.—No stool. To take the above pill at bed-time to-night.

3d.—No stool. Two drachms of sulphate of magnesia were added to each of the draughts.

4th.—Bowels freely moved this morning by the salts.

5th.—One dejection.

7th.—Continues well.

This young lady left Brighton, having regained her lost flesh and spirits, recovered (in place of the strawy tint) her usual complexion, red and white, without having experienced any return of her former headache; though, late

in the evenings of the 2d and 3d March, after the purging had been controlled, she lost her voice for two or three hours, and during the three next following nights she was awake with an irritating cough, which kept her awake for a couple of hours, when she again fell asleep. By continuing the use of the quinine draughts she got rid of every unpleasant symptom, and continues well.

LACERATED WOUND OF THE PERINEUM,

With Fracture of the Bones of the Pelvis—Recovery.

To the Editor of the London Medical Gazette.

SIR,

If you think the inclosed case worthy recording, it is much at your service. To have entered into minute details would have trespassed too much on your valuable pages. I have only farther to remark, that the man of course remains perfectly impotent.

I have the honour to be, Sir,

Your very obedient servant,

GEORGE C. RANKIN.

4, South Belgrave-Street,
March 30, 1851.

In the month of December (I think about the 16th), 1829, when residing in the vicinity of the Rideau Canal, an extensive military work now carrying on in Upper Canada, I was called to see a man named William Bell, a farmer, who had met with an accident at a place called the Hog's-back, about five miles distant from my residence. On examining him I was shocked, though I confess not surprised, at the extent of his wounds, when informed of the nature of the accident. After selling a load of the produce of his farm the poor man was returning across a narrow dam, when meeting a loaded cart he unfortunately locked his wheel, and in backing to extricate himself lost his balance and fell out of the cart over the dam; the horse continuing to back went over also, with the cart, and was killed on the spot. The dam was about 30 feet high, and the cart fell over the man. The first sight shewed a part of the sphincter ani, the whole perineum and scrotum, torn away, in the form of a triangle, the apex of which

was at the anus, and lying over the penis on the abdomen, leaving the testes perfectly denuded, and suspended like two eggs. How, under such circumstances, they escaped entire destruction, I cannot conceive. On a nearer inspection, I found the subjacent soft parts in a dreadful state of laceration, a part of the ramus of the ischium gone, and the ischium itself fractured between its tuberosity and the acetabulum; the left crus of the penis and urethra divided; and, on passing my fingers under the testes, removed several portions of the os pubis, which were apparently chipped off as if by some sharp instrument, and which, as well as a large portion of the ramus, I have preserved. In addition to the above, the right arm was so completely shattered, that I was under the necessity of amputating it some days after, not with any hope of ultimate recovery, but merely to relieve the patient from the pain which the splintered bones occasioned.

Looking upon this as a desperate case, I merely replaced the parts in situ, ordered poultices to be constantly applied, and the patient to be kept as quiet as possible. In this state he continued, labouring under the greatest excitement, until the 26th, when I perceived that the injured soft parts had entirely sloughed off, the stump still continuing a good deal swollen. On the 28th that state of collapse consequent on too great excitement, and which I had looked forward to as the event which was to put an end to his sufferings, was strikingly depicted on his cadaverous countenance; the stump was flaccid, and the wounds put on a languid appearance. I ordered wine to be given freely, and had the unexpected pleasure of seeing him something better on the 30th, and complaining of the pain occasioned by the pointed bones. Removed such parts of the ramus as I could get at with the bone-nippers, and succeeded in extracting two or three small splinters of the pubes, which had caused much irritation. From this time he appeared evidently to improve; the stump, as well as the wound, soon began to shew a secretion of healthy pus. At the end of a month from the amputation the stump was quite healed, and in another fortnight the injured bones of the pelvis had completely exfoliated, and healthy granulations were fast filling up the frightful

void which had been made in the soft parts; and in the beginning of March (1830), instead of my visiting him as formerly, he came to me as long as the snow lasted in a sledge; his long confinement in the recumbent posture having afforded ample time for the tuberosity of the ischium to reunite to the body of the bone, so that he could very soon sit up without much inconvenience.

The only thing farther to be done for him was to endeavour to re-establish the natural passage for the urine, instead of allowing it to continue to pass by the perineum. This I attempted, and, though unsuccessful, am still perfectly convinced of its practicability. After introducing the catheter and irritating the edges of the wound, adhesive plaster was applied, and I feel confident would, in forty-eight hours, have secured a union by this first intention, had it been allowed to remain; but, to my great disappointment, I found next day that the catheter had been removed by some officious friend, and I could not prevail on him again to permit its introduction. I would not be surprised, however, to hear that nature had ere this done for him what he would not permit to be done by art; for when I last saw him in August 1830, he informed me that when he opposed any obstacle, as the end of his finger, to the passage of the water by the perineum, it readily passed through the urethra.

During the whole course of this case the only prescriptions used were pectoral mixtures, to relieve a very troublesome and irritating cough, and an occasional aperient; and after the discontinuance of the poultices, the Cerat. Calamin. with lotions of Sulph. Zin. and an occasional touch of Nit. Argent. to keep down luxuriant granulations, were the only local applications found necessary.

Of all the cases which fall into the hands of the practitioner in surgery for treatment, there are perhaps none from which he may obtain more credit to himself, in great measure at the expense of nature, than in extensive lacerated wounds; the alarm which any loss of substance invariably excites amongst the ignorant in surgery naturally inclining the patient to bestow all that credit upon his attendant which the surgeon himself is content, in his own mind, to divide with nature.

I am not aware of there being any

case on record, accompanied with so many discouraging circumstances as the above, in which the patient has recovered; and the only object in view in preserving it (as such cases are fortunately of rare occurrence), is to afford another proof of the almost entire dependence to be placed, under such circumstances, in the *vis medicatrix nature*.

EFFECTS OF TIGHT LACING,

AS INDUCING MANY

Morbid Conditions in the Animal Economy.

By JOHN TUSON, Esq.

THOUGH I may incur the displeasure of many of the female part of the community in investigating a subject, the province of which they may consider peculiarly their own, yet on perusing my observations they will perceive that an anxious solicitude for their welfare alone has induced me to offer a few remarks upon a point, which will be found not only highly important, but most essentially necessary to their future comfort and happiness; nay, I may say, will contribute in a pre-eminent degree to enhance those personal charms, by convincing them that what they have been so long mistakingly, and with perverted optics, vainly flattering themselves were beauties, are deformities. In order to view this subject in its true character, let us contemplate the structure of the human body in its natural state: here we shall observe that the viscera have a particular situation and position assigned them; that they are endowed with functions peculiar to themselves, formed with a sagacity never to be too much admired, and all so admirably harmonizing together that, when uninterrupted in their operation, the most beautiful symmetry is the natural result: in confirmation of this, whenever nature is allowed to pursue her accustomed course, you see well-proportioned limbs, and an elegantly constructed form. Such are the effects of creative wisdom. Is it possible to conceive, being thus happily circumstanced, that human nature should

arrogantly and presumptuously set up a process for the formation and growth of the human body so diametrically opposite to that which nature intended for our good? Such, however, is the fact, inconceivable as it may appear. The figure of the Venus de Medicis is not suitable to the genius of the present age. Such is now the fashion, that to be considered *genteel*, the female form must assume the shape of an hour-glass. This is esteemed the height of perfection. What a ridiculous idea! For this purpose every invention is called into action to reduce the waist to the smallest possible dimensions. Stays, belts, ligatures, steel busks of different descriptions, are called into requisition for the attainment of this most absurd object. By means of this preposterous conduct the bones of the chest are compressed—the cartilages of the ribs ride over each other—the vital organs, so essentially necessary to our very existence, are obstructed and injured in their operations—the diaphragm is impeded in its action—the circulation through the large blood-vessels is obstructed—and the mammae, which in a natural state are so beautifully constructed, are flattened, and become flaccid, losing their elegant rotundity and figure—and various other evils are the result of this detestable practice. Now let me ask for what are all these ills incurred? Is there any thing particularly beautiful or desirable in an hour-glass contraction of the human body? Is there any thing particularly fascinating in pushing the breasts up to the neck? in forcing the stomach and liver into the inferior part of the abdomen? and pressing the bowels over the brim of the pelvis? thus displacing these important organs from the original position which nature assigned them, producing ruptures, &c. Its absurdity is too conspicuous to make any further comments upon it necessary. I shall now point out, from long and extensive practice, the diseases resulting from this ill-judged arrangement and mischievous interference; independently of the natural and accordant growth of the human frame being thus deranged.

The females indulging in this propensity are troubled with shortness of breath and loss of appetite; in truth, from the compressed state of the stomach, it

is incapable of receiving sufficient nutriment for the support of the animal economy, in consequence of which glandular obstructions, dyspeptic symptoms, faintings, convulsions, palpitations of the heart, and a numerous train of nervous symptoms, result. While from pressure on the heart and lungs, we have headaches, spitting of blood, inflammation of the eyes, swelled legs, varicose veins, and a numberless catalogue of woeful maladies.

It will be necessary for me to observe that this is not the only error, I regret to say, by which the undue interference of the female part of the community is productive of serious evil. It is considered by them a great beauty that the scapulae should be enabled to meet: backboards, &c. are used for this purpose, and by these means, whenever this which they consider a desirable object is accomplished, the result is that the clavicles are partially, if not wholly dislocated. In consequence likewise of the pressure used for this and the previous purposes, the various muscles of the human body, which in their natural state tend to contribute to its beauty and utility, are altogether deprived of their usual action,* and by long-continued want of exertion, their powers are altogether lost and destroyed; hunchbacks, crooked spines, and distorted pelves, are thus produced.

Such is the melancholy picture of these injudicious practices, which the present time will not allow me sufficiently to expatiate upon; suffice it to say, that the statement here exhibited is by no means exaggerated, and experience and observation concur in enforcing the conviction, that if the constitution were left to its own unbiassed operations, a robust frame, and sound constitution, would be the necessary result; on the contrary, if this absurd custom be pursued, the health will be completely destroyed, and a debilitated frame the consequence; life will be shortened, and, as long as its continuance exists, embittered with continued misery.

Howland-Street,
April 6th, 1861.

POISONING WITH SULPHURIC ACID.

Trial for Poisoning with Sulphuric Acid—Opinion deducible from Symptoms and Morbid Appearances only—New Processes for detecting Sulphuric Acid in Stains on Clothes, and in the Contents of the Stomach.

BY DR. CHRISTISON*.

Mrs. HUMPHREY, a butcher's wife in Aberdeen, was tried there at last autumn circuit for the murder of her husband, by administering to him sulphuric acid; and she was charged with perpetrating the crime by pouring the poison down his throat while he was asleep.

On Friday, the 16th April, her husband was seen by many people, his maid-servant included, in a state of perfect health. During the whole of that day he was at his stall in the market, and had his meals there, as well as various drams of whisky, in company with several acquaintances, none of whom suffered in consequence, any more than he himself appeared to do. Returning home at eight in the evening, still apparently in perfect health, he held a drinking party with some male friends in his kitchen; while the prisoner had her female friends to drink with her in a room adjoining. When they had both got somewhat drunk, they quarrelled and interchanged blows, on the subject of one of the prisoner's acquaintances, whose character was not to Humphrey's liking. After this, and not long past eleven, the company retired; the house was cleared for the night of all strangers; and the street-door was bolted inside by the servant.

There were now in the house only the prisoner, the deceased, and their female servant. It is also necessary to add, for the thorough understanding of the narrative, that the house consisted below stairs of a kitchen, a room entering from it, and a lobby; and above stairs, of the servant's room immediately over the kitchen, and another apartment usually kept locked, and used by the prisoner as a store-room.

Immediately after the visitors withdrew, the deceased went to bed in the kitchen, and the prisoner, who commonly slept up stairs with the servant

* Abbreviated from the Edinburgh Medical and Surgical Journal.

after a quarrel with her husband, retired to the room on the ground-floor adjoining the kitchen, and at the same time desired the servant, who was usually last out of bed, to go to sleep and leave her,—saying that she wanted to see whether her husband would “settle,” and adding, “Lord God! that any body would give him poison, and keep her hands clear of it.” The servant then extinguished the light in the kitchen, at which time she conversed with the deceased in bed, who was perfectly well to all appearance, and not particularly drunk. Proceeding now up stairs, she undressed, and had not been long in bed when she became aware that the deceased had fallen asleep; for he was quite quiet; whereas, when he lay awake after a fit of drunkenness, she invariably heard him through the floor talking aloud to himself. In a little, the prisoner arrived up stairs on her stocking-soles, to see if the servant was asleep; and on the latter requesting her to come to bed, she still declined, and returned down stairs, repeating that “she wanted to see her husband settle first.” The servant then fell asleep. She had not slept more than a few minutes, however, when her mistress came again up stairs, still on her stocking-soles, and awoke her; desiring her, with a smile, to go down and see what was the matter with her master. She did so; and then, within half an hour after leaving Humphrey quite well, she found him crying out with pain, writhing from side to side, and exclaiming that he was all burnt in the inside. After some conversation as to the cause of his illness, she went out to seek assistance, and in doing so found the bolt of the street-door undrawn, as she had left it.

This witness, as well as a former servant, further stated, that her master, when he was drunk, always slept on his back with his mouth wide open. She likewise deposed that her mistress when she awoke her, although intoxicated, was quite sensible enough to understand what she was doing; that she carried her light steadily, walked without staggering, and spoke distinctly.

The conduct of the prisoner after her husband's illness commenced, was not such as to lead to any material evidence against her. On the contrary, after she began to recover from her state of intoxication, she shewed great apparent

concern for his sufferings, attended his sick-bed unremittingly, cried often, and threw no obstacles in the way of medical advice being immediately procured. To some neighbours, however, whom she called to his aid, she said he was mad; and throughout his whole illness, without any imputation being thrown on her, she made frequent attempts to get him to say before witnesses that he did not ascribe his sufferings to her.

Some weeks before this time, a quantity of sulphuric acid, amounting to about three teaspoonfuls, was purchased for the prisoner, who applied it by means of a wire to burn away a wart. The phial in which it was kept stood at the kitchen window, opposite the bed, and at some distance from it. At five in the afternoon of Friday the servant saw the phial in its usual place, containing about two teaspoonfuls; but at night, after the alarm occasioned by Humphrey's illness, one of the neighbours found the bottle in the same spot with only a few drops in it.

Now the prisoner's friends, who had been drinking with her in the low room in the early part of the evening, left two wine-glasses there, which were also seen by the servant when she left the prisoner in that room, before going up stairs to bed. But after the alarm, four or five men and women, who went into the same room, found also a third wine-glass. One of these women had with her an infant, who was constantly stretching out his hand to the glasses; and she gave him one of them, and put it to his lips. The child instantly screamed violently, which drew her attention to the glass; and on remarking that it was moist, she put her tongue to it, and immediately felt “as if a lancet had been thrust into the tongue.” The other people having tasted it after her, and experienced the same effect, the prisoner was called in and told of what had happened. She replied that it must have been the dregs of an alum gargle she was using for a sore throat, and took the glass away with her to the kitchen. She was there seen by the servant to wipe it with an apron; and some days afterwards the apron was found with red and corroded spots on it. After removing the glass, the prisoner returned with some alum gargle in a tea-cup to the party who had called her attention to the glass; and these

people all tasted the alum gargle, but declared it did not taste the least like the contents of the glass.

The medical history of the case was to the following purport. From the first moment the deceased was seen by the servant about midnight, he was complaining of burning in his throat and inside, and said he awoke suddenly with these symptoms. He had likewise extreme difficulty in articulating, and frequent retching, froth issued from his mouth, he tried to swallow water but could not, and on attempting to swallow milk he returned it curdled. About one, Mr. Jamieson, who was called to see him, remarked the symptoms now mentioned, and also observed that the lips were uninjured, the tongue and inside of the mouth very white, the whole throat dark and inflamed, the uvula black, the countenance pale and ghastly, and the pulse very feeble. He tried to draw blood from the arm, but got only a few ounces. Having afterwards procured the assistance of Dr. Murray, an attempt was made to use the stomach-pump, as the man was quite unable to swallow; but the tube of the pump could not be passed, on account of the pain in the throat. The suspicions of the medical gentlemen as to the administration of poison were at this time somewhat lulled. The man and his wife having misled them in describing the time and manner of the commencement of the symptoms, they began to think his complaint might be a malignant sore throat. They therefore administered first a salt injection, then another with laudanum, and directed warm fomentations to be applied to the stomach.

At half-past seven the same morning, Humphrey still complained of his stomach; the tongue was swollen, the breathing difficult, and about this period was also remarked for the first time a reddish mark on the chin, and another at the angle of the mouth, both of which marks, in the course of two or three hours, became brownish. A siphon was now applied to the throat, and an ounce of castor oil administered slowly and with difficulty. At eleven in the forenoon he was in the same state, and unable to swallow anything. At eight in the evening his throat and stomach were rather easier, and he could swallow with much difficulty a little liquid. His medical attendants were

now convinced that some corrosive acid had been administered; and accordingly magnesia was given.

On the forenoon of Sunday there was much difficulty in breathing, which the man ascribed to his sore throat. Leeches were therefore applied, and with some relief to the breathing. At eight in the evening the pulse was extremely feeble, and the man's strength so much exhausted that it was obvious he could not live many hours longer, and accordingly he expired about eleven the same evening—forty-seven hours after the commencement of his illness.

The body was examined thirteen hours after death, by Drs. Henderson and Murray, and Mr. Jamieson, who drew up the following report of the appearances:—

“Externally the body appeared muscular and fat. The scrotum and penis were slightly swollen, and they were livid, more especially the glans. A small quantity of whitish liquid was noticed between the prepuce and glans. On the outside of the mouth there were two brownish marks, in length between one and two inches. One of these was on the centre of the chin, and its upper end, which was nearly a quarter of an inch from the edge of the lower lip, was narrower than the part below. The other was of a lighter colour, and situated near the left corner of the mouth. The gums and part of the inside of the lips were of an almost milky whiteness; but neither the remainder of the lips nor the teeth exhibited any thing worthy of notice. The roof of the mouth had a glazed appearance, and was of a greyish-white colour, except at the posterior part, where a degree of redness was visible. The uvula was ash-coloured. The back part of the tongue had lost its leaveting membrane and was of a red colour, while its fore-part was covered with a whitish brown crust. In appearance, the pharynx was similar to the posterior part of the roof of the mouth. The membrane covering the epiglottis was all around ash-coloured and much thickened, detached in some places, and in the rest easily separable from the parts beneath, which had a florid appearance. On the inside of the larynx, a little below the rima glottidis, a small portion of the membrane was white and in part detached. An inconsiderable quantity of purulent matter was detached in the muscular substance be-

after a quarrel with her husband, retired to the room on the ground-floor adjoining the kitchen, and at the same time desired the servant, who was usually last out of bed, to go to sleep and leave her, —saying that she wanted to see whether her husband would “settle,” and adding, “Lord God! that any body would give him poison, and keep her hands clear of it.” The servant then extinguished the light in the kitchen, at which time she conversed with the deceased in bed, who was perfectly well to all appearance, and not particularly drunk. Proceeding now up stairs, she undressed, and had not been long in bed when she became aware that the deceased had fallen asleep; for he was quite quiet; whereas, when he lay awake after a fit of drunkenness, she invariably heard him through the floor talking aloud to himself. In a little, the prisoner arrived up stairs on her stocking-soles, to see if the servant was asleep; and on the latter requesting her to come to bed, she still declined, and returned down stairs, repeating that “she wanted to see her husband settle first.” The servant then fell asleep. She had not slept more than a few minutes, however, when her mistress came again up stairs, still on her stocking-soles, and awoke her; desiring her, with a smile, to go down and see what was the matter with her master. She did so: and then, within half an hour after leaving Humphrey quite well, she found him crying out with pain, writhing from side to side, and exclaiming that he was all burnt in the inside. After some conversation as to the cause of his illness, she went out to seek assistance, and in doing so found the bolt of the street-door undrawn, as she had left it.

This witness, as well as a former servant, further stated, that her master, when he was drunk, always slept on his back with his mouth wide open. She likewise deposed that her mistress when she awoke her, although intoxicated, was quite sensible enough to understand what she was doing; that she carried her light steadily, walked without staggering, and spoke distinctly.

The conduct of the prisoner after her husband's illness commenced, was not such as to lead to any material evidence against her. On the contrary, after she began to recover from her state of intoxication, she shewed great apparent

concern for his sufferings, attended his sick-bed unremittingly, cried often, and threw no obstacles in the way of medical advice being immediately procured. To some neighbours, however, whom she called to his aid, she said he was mad; and throughout his whole illness, without any imputation being thrown on her, she made frequent attempts to get him to say before witnesses that he did not ascribe his sufferings to her.

Some weeks before this time, a quantity of sulphuric acid, amounting to about three teaspoonfuls, was purchased for the prisoner, who applied it by means of a wire to burn away a wart. The phial in which it was kept stood at the kitchen window, opposite the bed, and at some distance from it. At five in the afternoon of Friday the servant saw the phial in its usual place, containing about two teaspoonfuls; but at night, after the alarm occasioned by Humphrey's illness, one of the neighbours found the bottle in the same spot with only a few drops in it.

Now the prisoner's friends, who had been drinking with her in the low room in the early part of the evening, left two wine-glasses there, which were also seen by the servant when she left the prisoner in that room, before going up stairs to bed. But after the alarm, four or five men and women, who went into the same room, found also a third wine-glass. One of these women had with her an infant, who was constantly stretching out his hand to the glasses; and she gave him one of them, and put it to his lips. The child instantly screamed violently, which attracted attention to the glass; and when she found that it was moist, she put it to her own lips, and immediately spat it out. It had been through the mouth of other people before, and experienced the prisoner was asked whether it had happened to have been the case when she was using it. She took the glass to the kitchen. She desired the servant to wait some days, and then found with regret that it was empty. After the prisoner returned in a tea-cup to her attention

comparative experiments on other parts of each of the above-named articles; from which we did not obtain any appreciable quantity of sulphuric acid."

Such were the leading particulars of the medical and general evidence brought out at the trial. With such a mass of circumstantial proof against the prisoner, and scarcely a single circumstance to throw doubt over any part of it, a conviction was inevitable. She was subsequently executed in pursuance of her sentence, and before her death made a full confession of her guilt.

Process for detecting free Sulphuric Acid in Stained Clothes.

Having prepared a solution by boiling the stains in a little distilled water, ascertain the acidity of the liquid with litmus paper, and with a few drops determine the presence of sulphuric acid in one form or another. Then add carbonate of lead to complete neutralization, and promote its decomposition by boiling: sulphate of lead will be formed with any free sulphuric acid present, but not with the neutral alkaline or earthy sulphates, as I have taken care to ascertain experimentally. The carbonate of lead used in the process must of course be quite free of sulphate, which the common white lead of the shops almost always contains; and to guard against this fallacy, its purity must be ascertained by observing whether it is entirely soluble in diluted nitric acid; or, which is still better, it may be prepared in a state of great purity by precipitating a solution of acetate of lead with *bi* carbonate of soda*, and carefully washing the precipitate with distilled water. The suspected fluid being neutralized by the carbonate of lead, the precipitate is to be collected on a filter, and washed once with distilled water; then compressed between folds of blotting paper, if possible without rupturing the filter; then again washed with distilled water, and again dried by compression between folds of blotting paper. The precipitate, which now consists of carbonate and sulphate of lead, coloured perhaps by organic matter, is to be treated with diluted nitric acid, which removes the carbonate. The residue, after being collected on a filter and washed with distilled water, is to be carefully mixed up, while damp, with distilled water in

a mortar, and decomposed by a stream of sulphuretted hydrogen gas, maintained for half an hour or more, according to the quantity of the precipitate. After the action of the gas, the mixture is to be immediately boiled and filtered. There will then be in solution free sulphuric acid, with some organic matter. The presence of the acid may be proved now by the old process; that is, the solution is to be treated with nitrate of baryta and a few drops of nitric acid. The precipitated sulphate of baryta may be then converted into the sulphuret by heating it with charcoal; and the sulphuret is proved to exist by the disengagement of sulphuretted hydrogen on the addition of diluted muriatic acid.

Process for detecting free Sulphuric Acid in the Contents of the Stomach, and other Organic Mixtures.

Filter the fluid, distilled water being added, if necessary. Place it in a matrass, to which a tube with a ball is adapted by a cork; and let the extremity of the tube just enter the neck of a bottle, of the same capacity with the matrass, and immersed up to the neck in cold water. Distil with a gentle heat, till the fluid in the matrass is reduced to the consistence of a thin syrup. The last portions of the distilled fluid are then to be tested for muriatic acid by the nitrate of silver, and for acetic acid by the taste and smell. If neither appear to be present, the matter remaining in the matrass may be subjected to the process for detecting free sulphuric acid in stained cloth.—If, on the contrary, either acid be present, distilled water is to be poured into the matrass, and the mixture again distilled to the consistence of a thin syrup; and this addition of water and distillation must be repeated till the last portions of the distilled liquid give, with nitrate of silver, either no precipitate or a mere haze only, or till the smell and taste of acetic acid entirely disappear. The residual fluid in the matrass will then contain a mere trace only of muriatic or acetic acid, while scarcely any free sulphuric acid will have passed over with the water, if the distillation be properly managed. When thus prepared, therefore, the matter in the matrass may be subjected, without risk of error, to the process for detecting sulphuric acid in stains.

The following points must be attend-

* The bicarbonate of soda of the shops is free of sulphates.

after a quarrel with her husband, retired to the room on the ground-floor adjoining the kitchen, and at the same time desired the servant, who was usually last out of bed, to go to sleep and leave her, —saying that she wanted to see whether her husband would “settle,” and adding, “Lord God! that any body would give him poison, and keep her hands clear of it.” The servant then extinguished the light in the kitchen, at which time she conversed with the deceased in bed, who was perfectly well to all appearance, and not particularly drunk. Proceeding now up stairs, she undressed, and had not been long in bed when she became aware that the deceased had fallen asleep; for he was quite quiet; whereas, when he lay awake after a fit of drunkenness, she invariably heard him through the floor talking aloud to himself. In a little, the prisoner arrived up stairs on her stocking-soles, to see if the servant was asleep; and on the latter requesting her to come to bed, she still declined, and returned down stairs, repeating that “she wanted to see her husband settle first.” The servant then fell asleep. She had not slept more than a few minutes, however, when her mistress came again up stairs, still on her stocking-soles, and awoke her; desiring her, with a smile, to go down and see what was the matter with her master. She did so: and then, within half an hour after leaving Humphrey quite well, she found him crying out with pain, writhing from side to side, and exclaiming that he was all burnt in the inside. After some conversation as to the cause of his illness, she went out to seek assistance, and in doing so found the bolt of the street-door undrawn, as she had left it.

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concern for his sufferings, attended his sick-bed unremittingly, cried often, and threw no obstacles in the way of medical advice being immediately procured. To some neighbours, however, whom she called to his aid, she said he was mad; and throughout his whole illness, without any imputation being thrown on her, she made frequent attempts to get him to say before witnesses that he did not ascribe his sufferings to her.

Some weeks before this time, a quantity of sulphuric acid, amounting to about three teaspoonfuls, was purchased for the prisoner, who applied it by means of a wire to burn away a wart. The phial in which it was kept stood at the kitchen window, opposite the bed, and at some distance from it. At five in the afternoon of Friday the servant saw the phial in its usual place, containing about two teaspoonfuls; but at night, after the alarm occasioned by Humphrey's illness, one of the neighbours found the bottle in the same spot with only a few drops in it.

Now the prisoner's friends, who had been drinking with her in the low room in the early part of the evening, left two wine-glasses there, which were also seen by the servant when she left the prisoner in that room, before going up stairs to bed. But after the alarm, four or five men and women, who went into the same room, found also a third wine-glass. One of these women had with her an infant, who was constantly stretching out his hand to the glasses; and she gave him one of them, and put it to his lips. The child instantly screamed violently, which drew her attention to the glass; and on remarking that it was moist, she put her tongue to it, and immediately felt “as if a lancet had been thrust into the tongue.” The other people having tasted it after her, and experienced the same effect, the prisoner was called in and told of what had happened. She replied that it must have been the drops of an alum gargle she was using for a sore throat, and took the glass away with her to the kitchen. She was there seen by the servant to wipe it with an apron; and some days afterwards the apron was found with red and corroded spots on it. After removing the glass, the prisoner returned with some alum gargle in a tea-cup to the party who had called her attention to the glass; and these

people all tasted the alum gargle, but declared it did not taste the least like the contents of the glass.

The medical history of the case was to the following purport. From the first moment the deceased was seen by the servant about midnight, he was complaining of burning in his throat and inside, and said he awoke suddenly with these symptoms. He had likewise extreme difficulty in articulating, and frequent retching, froth issued from his mouth, he tried to swallow water but could not, and on attempting to swallow milk he returned it curdled. About one, Mr. Jamieson, who was called to see him, remarked the symptoms now mentioned, and also observed that the lips were uninjured, the tongue and inside of the mouth very white, the whole throat dark and inflamed, the uvula black, the countenance pale and ghastly, and the pulse very feeble. He tried to draw blood from the arm, but got only a few ounces. Having afterwards procured the assistance of Dr. Murray, an attempt was made to use the stomach-pump, as the man was quite unable to swallow; but the tube of the pump could not be passed, on account of the pain in the throat. The suspicions of the medical gentlemen as to the administration of poison were at this time somewhat lulled. The man and his wife having misled them in describing the time and manner of the commencement of the symptoms, they began to think his complaint might be a malignant sore-throat. They therefore administered first a salt injection, then another with laudanum, and directed warm fomentations to be applied to the stomach.

At half-past seven the same morning, Humphrey still complained of his stomach; the tongue was swollen, the breathing difficult, and about this period was also remarked for the first time a reddish mark on the chin, and another at the angle of the mouth, both of which marks, in the course of two or three hours, became brownish. A sinapism was now applied to the throat, and an ounce of castor-oil administered slowly and with difficulty. At eleven in the forenoon he was in the same state, and unable to swallow any thing. At eight in the evening his throat and stomach were rather easier, and he could swallow with much difficulty a little liquid. His medical attendants were

now convinced that some corrosive acid had been administered; and accordingly magnesia was given.

On the forenoon of Sunday there was much difficulty in breathing, which the man ascribed to his sore throat. Leeches were therefore applied, and with some relief to the breathing. At eight in the evening the pulse was extremely feeble, and the man's strength so much exhausted that it was obvious he could not live many hours longer; and accordingly he expired about eleven the same evening—forty-seven hours after the commencement of his illness.

The body was examined thirteen hours after death, by Drs. Henderson and Murray, and Mr. Jamieson, who drew up the following report of the appearances:—

“Externally the body appeared muscular and fat. The scrotum and penis were slightly swollen, and they were livid, more especially the glans. A small quantity of whitish liquid was noticed between the prepuce and glans. On the outside of the mouth there were two brownish marks, in length between one and two inches. One of these was on the centre of the chin, and its upper end, which was nearly a quarter of an inch from the edge of the lower lip, was narrower than the part below. The other was of a lighter colour, and situated near the left corner of the mouth. The gums and part of the inside of the lips were of an almost milky whiteness; but neither the remainder of the lips nor the teeth exhibited any thing worthy of notice. The roof of the mouth had a glazed appearance, and was of a greyish-white colour, except at the posterior part, where a degree of redness was visible. The uvula was ash-coloured. The back part of the tongue had lost its investing membrane and was of a red colour, while its fore-part was covered with a whitish brown crust. In appearance, the pharynx was similar to the posterior part of the roof of the mouth. The membrane covering the epiglottis was all around ash-coloured and much thickened, detached in some places, and in the rest easily separable from the parts beneath, which had a florid appearance. On the inside of the larynx, a little below the rima glottidis, a small portion of the membrane was white and in part detached. An inconsiderable quantity of purulent matter was detached in the muscular substance be-

one occasion, four or five ounces of blood were thrown up from the erosion of a small vessel in the ulcerated tonsil. By the use of gargles and tonics the sore in the throat very soon healed. On the evening of October 8th, after the throat was entirely well, with the exception of a slight enlargement of the right tonsil, she threw up, in the course of one or two minutes, twenty-five ounces of florid blood; and in the act of vomiting she was almost suffocated, and immediately became exceedingly faint, her pulse being a mere thread. After swallowing some wine she soon rallied, though she continued very feeble for several days. She had no cough, or uneasiness of any kind in any part of her chest, either before or after this vomiting of blood. There was after this no farther constitutional disturbance. She remained in the hospital till February 26th, 1831, when she was discharged with very little remains of the tumor, the greater part of it having shrunk, and a very feeble pulsation, extending only one inch upwards from the ear and scarcely half an inch transversely. A compress and bandage were kept constantly and tightly applied during her sojourn in the hospital.

Although, in the case now briefly detailed, there was no pulsation to point out the entrance of any artery into the tumor except the temporal, yet there could be no doubt but other vessels did enter it; thus constituting aneurism by anastomosis. Serious objections, I am aware, have of late been raised against the application of ligature to the common carotid for aneurism on the scalp and face, on account of the very free anastomosis of the arteries of these parts. The preferable plan, I admit, is to surround the aneurismal swelling, when so situated, with ligatures; but in this case, on account of the immense surface involved in the disease, such a mode of procedure was deemed totally impracticable. There was, therefore, no alternative left me but to cut off as much as possible the supply of blood, by tying the common carotid; and my expectations of success have been fully realized, for, if it cannot be said that the disease has been completely cured, it has been so much arrested that there is little chance of its ever giving the patient any farther trouble; or, at all events, it is brought to that state which will now, should

there be occasion, readily admit of its being included within ligatures. So completely, indeed, did the circulation appear to be arrested, both in the tumor and temporal artery, for the first thirteen or fourteen days after the operation, that no pulsation (not even a thrill) could be felt in either the one or the other; and during this time, I think, the tumor might have been opened without any risk of hæmorrhage, and the sac filled with lint, in order to have induced inflammation; and thus to have effectually ensured the patient against any chance of farther progression or even continuance of aneurismal action; and to me it is a question whether, in a similar case, this should not be done, for the objection to such practice can only be grounded on the danger of the inflammation running too high; and this danger surely cannot be so great as when ligatures are used. The result of the case, then, clearly shews that tying the common carotid artery for aneurism on the scalp and face, is not always to be abandoned; on the contrary, I suspect that it will often be found highly serviceable—at one time effecting a complete cure, at another controlling the disease in such a manner that it shall remain stationary, or bringing it to a condition suitable for the application of ligatures.

ANOMALOUS CASE OF INTERMITTENT FEVER.

To the Editor of the London Medical Gazette.

SIR,

SHOULD the following anomalous case of intermittent fever possess sufficient interest, its insertion in the Medical Gazette will oblige, sir,

Most truly yours,

JAMES PICKFORD.

Cavendish-Place, King's-Road,
Brighton, March 26, 1831.

On the 12th February last I was sent for to see a delicate young lady, between 18 and 19, who was then suffering from a violent diarrhoea, attended with griping, which had continued for the last six or seven days without intermission, during which time, as well as also during the previous three months, she had lost flesh considerably, and acquired a proportionate degree of listlessness.

and despondency. Her pulse was 76, and feeble; tongue pale, but clean; appetite good; pressure upon the abdomen produced neither pain nor uneasiness; catamenia regular; countenance extremely sallow.

The history furnished me was, that in November 1830, after having been present the preceding evening at a ball in one of the inland counties, where she became heated from dancing, she imprudently travelled up to town at a rapid pace with the carriage windows down; and that scarcely had she entered her father's house before she felt exceedingly giddy, and next complained of acute pain on the left side of the forehead. The former was attributed to the long journey and quick travelling, and the latter to the circumstance of having caught cold from the windows of her carriage not being closed. The forehead was bathed with Eau de Cologne, and after a few hours she got relief, but next evening the same pain returned, continued a certain length of time, and then again went off. Becoming worse, she was seen by two gentlemen of eminence in London, who, in the early part of February last, sent her to Brighton, for the purpose of shower-bathing, directing her at the same time to continue the remedies prescribed by them, which consisted of sulph. Quinin. and aromatic bitter infusions. But a few days after her arrival at Brighton, and before she had commenced the bath, a diarrhoea set in, for which I was ultimately applied to. I should also add, that after the purging commenced, the neuralgic affection entirely ceased: I was therefore cautious in not checking too suddenly the former, and with this view directed for her, chalk draughts, with aromatic confection; carraway water, and five drops of laudanum in each: one to be taken occasionally, and at bed-time two grains of blue pill, with three of extract of hemlock. Her diet, which had consisted of rice milk, meat, vegetables, and mulled claret, was restricted to plain roast or boiled meat, spiced beef-tea, and the claret, with which latter she was unwilling to part.

The first draught checked the purging altogether; no other medicines were therefore given that day except the pill at bed-time.

13th.—Six slimy and bilious dejections; the chalk draughts were again given, and the purging again stopped.

14th.—No stool. To take a chalk draught at bed-time.

15th.—No stool. To take a tea-spoonful of castor oil to-morrow morning, if no evacuation take place before then.

16th.—Took the oil this morning, and has already (12 o'clock) had eight stools of the same character as before. The following draught was now prescribed for her.

R Infus. Gentian, comp.
Mist. Camphor, aa. f. 3v.
Tinct. Rhei. f. 3ss.
Tinct. Opil, gttss. v. M. ft. haustus statim sumendus.

17th.—No stool. To continue the above draught twice during the day, but without the Tr. Opil.

18th.—Six stools. To substitute mulled port wine for the claret, and to take neither fish, cheese, nor rice milk.

R Mist. Camphor, f. 3x.
Tinct. Opil, gttss. vj.
Conf. Aromat. 3ss. M. ft. haustus statim sumendus.

19th.—The purging was not entirely checked yesterday afternoon, and this morning she has already had two motions.

R Conf. Aromat.
Conf. Opiat. aa. gr. xv.
Tinct. Cinchon, comp. f. 3j.
Mist. Camphor, f. 3x. M. ft. haustus bis die sumendus.

20th.—No stool since yesterday morning.

21st.—Six stools this morning. It now became pretty evident that the purging put on a periodical type, and, upon closely investigating the matter, it appeared that every other morning, whilst in bed, the patient was seized with acute pain in the bowels, which lasted for about half an hour, and then terminated in purging. The number of evacuations was generally from six to eight, all of which occurred in the space of three hours; so that after mid-day she rarely had any, with one or two exceptions. I also now first learnt that she had had "odd sort of attacks," generally every afternoon about five o'clock, for nearly three months previously to the neuralgic affection coming on, the nature of which were first "chilliness, and sometimes faintings;" after which she again became "warm and comfortable." About this

one occasion, four or five ounces of blood were thrown up from the erosion of a small vessel in the ulcerated tonsil. By the use of gargles and tonics the sore in the throat very soon healed. On the evening of October 8th, after the throat was entirely well, with the exception of a slight enlargement of the right tonsil, she threw up, in the course of one or two minutes, twenty-five ounces of florid blood; and in the act of vomiting she was almost suffocated, and immediately became exceedingly faint, her pulse being a mere thread. After swallowing some wine she soon rallied, though she continued very feeble for several days. She had no cough, or uneasiness of any kind in any part of her chest, either before or after this vomiting of blood. There was after this no farther constitutional disturbance. She remained in the hospital till February 26th, 1831, when she was discharged with very little remains of the tumor, the greater part of it having shrunk, and a very feeble pulsation, extending only one inch upwards from the ear and scarcely half an inch transversely. A compress and bandage were kept constantly and tightly applied during her sojourn in the hospital.

Although, in the case now briefly detailed, there was no pulsation to point out the entrance of any artery into the tumor except the temporal, yet there could be no doubt but other vessels did enter it; thus constituting aneurism by anastomosis. Serious objections, I am aware, have of late been raised against the application of ligature to the common carotid for aneurism on the scalp and face, on account of the very free anastomosis of the arteries of these parts. The preferable plan, I admit, is to surround the aneurismal swelling, when so situated, with ligatures; but in this case, on account of the immense surface involved in the disease, such a mode of procedure was deemed totally impracticable. There was, therefore, no alternative left me but to cut off as much as possible the supply of blood, by tying the common carotid; and my expectations of success have been fully realized, for, if it cannot be said that the disease has been completely cured, it has been so much arrested that there is little chance of its ever giving the patient any farther trouble; or, at all events, it is brought to that state which will now, should

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In the same manner, Dr. Reid cured himself of a tendency to frightful dreams, with which he had been annoyed from his early years. He endeavoured to fix strongly on his mind the impression, that all such dangers in dreams are but imaginary; and determined, whenever in a dream he found himself on the brink of a precipice, to throw himself over, and so dissipate the vision. By persevering in this method, he so removed the propensity that, for forty years, he was never sensible of dreaming, though he was very attentive in his observation on the subject."

This was mighty clever of Dr. Reid, no doubt, especially as he used to dream in so interestingly painful a manner. If we remember right, the worthy doctor on one occasion, having a blister-dressing rather disarranged on his head, dreamt that he had fallen into the hands of savages, and was scalped by them!

But we must defer the remainder of our observations on this volume until next week.

MEDICAL GAZETTE.

Saturday, April 16, 1831.

"*Licet omnibus, licet etiam mihi, dignitatem Artis Medicæ tuæ; potestas modo veniendi in publicum sit, discendi periculum non recuso.*"—CROZAN.

THE IRISH COLLEGE—APPRENTICESHIP SYSTEM.

We stated in our penultimate number some of our objections to what we conceive to be the grossly reprehensible mismanagement of certain persons connected with the College of Surgeons in Ireland—we allude more particularly to their perpetuation of the apprenticeship system under the new charter. It is to be presumed that this new document was not applied for rashly, nor without protracted and due deliberation; and that it is, therefore, perfectly proper to discuss calmly, not only its merits, but the probable motives of those who took so much pains to procure it. The first question, then, that naturally arises to us is, what was the great end and aim of procuring such a charter?

And to this we can distinctly enumerate three different kinds of answer: first, those who would talk big, and bluster, say that it was to "throw open" the College, to be sure, and who would dare to doubt it? Secondly, the champion of barber-surgeons comes forth to announce to us that the main object was, to enable the College to fix a system of education—they having had, up to the period of the new charter, no power save that of insisting upon *indentures*. And thirdly, the disinterested and intelligent portion of the community, who can perceive without difficulty the difference between a hawk and a handsaw, respond to the question by saying, that the great end and aim of procuring the new charter was simply this—to evade the just demands of the public in the first instance, and then to perpetuate the apprenticeship system, and thereby to secure a monopoly of the good things therewith connected. We shall briefly examine into the grounds of these several responses.

To those who would fain trumpet forth the liberality of the College in allowing itself to be "thrown open," we would just propose a question or two: what is it exactly that *has been thrown open*? Are the students henceforth to be all of one class; or if some are to be indentured and some not, are the same advantages offered to the apprentice and the non-apprentice, by this famous new document? Are not the County Infirmaries of Ireland kept in *commendam* for those educated under the apprenticeship system? And are there not certain *privileges* expressly reserved for those students who pay an apprentice fee, and meanly suffer themselves to be degraded by an indenture? The blustering party will not readily give an answer to these queries, we opine—nor, indeed, need they put themselves to the trouble. So pass we on to the next respondent, the

advocate of things as they *now* are and as they *were* in the good olden time.

According to this learned pundit—the College has never had the power to lay down any system of education, (always excepting the apprenticeship system, which our chivalrous advocate has no doubt about, as being the very best that can be conceived); their first address to every man who came before them to seek their diploma without having an indenture to produce, as some from time to time did, invariably was: “Sir, you may be a very able man for aught we know, or aught we care—you may have studied in London, or in Paris, or in Vienna, or where you please—you may be a surgeon of any other college, you may be almost as clever as ourselves—we see you have certificates numerous and unquestionable—but, sir, charity begins at home—you will excuse us, but we really can know nothing about you, as you have not served your time to Mr. Jacob or Mr. Harrison, or some other of ourselves—you cannot otherwise be a regularly-educated man, and it would be dangerous, nay, impossible, to give you a chance of becoming one of us.”

Such was the state of things under the old charter. But people grew tired of this—they would listen to it no longer—and they obliged the *regularly-educated* to change their note. A rational system of education was therefore loudly insisted upon, and adopted in consequence, but in a very peculiar way. Like the Arah, who, unwilling to sell his camel for little or nothing, though he had bound himself by a vow to do so, hung round its neck a cat, upon which he set an exorbitant value, protesting that he should not sell either animal without the other, or, if either, certainly not the camel; so our worthy regulars offer a very good education at a tolerably fair and reasonable rate, but will by no means part with it without

selling also the indenture, which they insist upon throwing into the bargain. They will sell the indenture without the education, but not the reverse. In short, they throw open the College, but they still maintain that those who wish *regularly* to enter their portals, and to entitle themselves to all the benefits to be derived from such a step, shall take the cat along with the camel—“no ‘prentice no privilege” is their motto; and without “the bond” it is well understood that the bargain is worth nothing.

Nor shall this be taken for an over-charged statement of the uses to which the new powers of the College have been applied. The very first act of their official proceedings under the new charter was, be it observed, to draw up and constitute—not a system of education, which it was the professed object of those applicants for “brief authority” to be desirous of having the power to regulate—but two distinct and contrasted systems, the several merits of which even those who ran might read and inwardly digest. We have on some former occasions pointed out certain of the distinctive marks of those two codes: we have noticed how the apprentice’s education is left altogether to the discretion of his master (who, by-the-way, as we have already observed, very frequently does not know even the young man’s face); how the apprentice is permitted to enter into the profession after the expiration of five years (four, at least, of which are, it is generally allowed, spent in idleness and trifling amusement); how five years under the easy yoke of the apprentice-bond are set off against six years study; and how, by the mysterious hint in the very first regulation, hopes and expectations are held out to all who adopt the good old plan. We noticed these features in the new system, yet did we not notice a tythe of the partial and corrupt abuse-

dities which catch our eye on repe-
rusing those by-laws which relate to
the present system of education in
the Irish College. Can a more gross
and glaring anomaly, for example, be
conceived, than to require but one
certificate for chemistry from the ap-
prentice, while two are strictly re-
quired from the non-indentured stu-
dent? Perhaps we should rather reflect
what a divine influence this same
indenture must exercise over the in-
tellectual faculties of its possessors,
when it can impart to them a degree of
importance equivalent to the knowledge
derived from a second course of che-
mistry! Why this indenture is the true
stone—the arcanum preciosum so long
sought after by the world.

But really it is rather too serious a
business for joking about; and we must
not forget, meantime, that we have still
another, the third class of respondents,
to deal with. With this class we have no
objection at once to identify ourselves;
for we are decidedly of the number of
those who deem the procural, and the use
which has been made of the new charter,
nothing less than an evasion—a palpable
job. What we argue is this—that, first of
all, the apprenticeship system, which it is
clearly the main purpose of the docu-
ment in question to perpetuate, is an
undeniable degradation to those who are
afflicted with it; that we see no *honest*
or honourable reason, stain as it was to
the former constitution of the College,
and obnoxious to the great body of
the profession in Ireland, and so entirely
at variance with the liberal system pur-
sued in other countries—why it should
be retained—and that, too, with so
glaring and palpable a *bonus* upon its
continuance. The plan of educating by
indenture we hold, moreover, to be a
mere delusion, an antiquated delusion
most injudiciously retained: it is, at
best, but a bad method of acquiring
some of the little superficial practice

without knowledge, attainable in the sur-
geries and dispensaries to which the
master belongs; a method, by which a
young man is puffed up with self-im-
portance at a time when any other dis-
position of mind would be infinitely
more valuable to him. He may attain,
perhaps, a mechanical facility of doing
some of the minor operations—a smat-
tering, as it were, without principles;
but he begins, we take it, at the
wrong end, and is never, in most
cases, more than a handicrafts man
all his life: a plain, a dextrous
practitioner, he may indeed be-
come, but beyond that he cannot go:
and all this, be it remembered, is on the
supposition that the master does his
duty by his apprentice—that he affords
him the opportunity of learning some-
thing, (a favourable case, as all men
must admit, for as to the “instruct or
cause to be instructed” of the indenture-
bond, we need not say how well it is un-
derstood to be merely one of those legal
fictions which embellish every law-paper),
and that the apprentice is disposed to
be industrious, or at least not given to
idle amusement, which is another
favourable case, rather bordering on the
improbable. Now when it is further
considered, that even the most bare-
faced advocate of the system admits
the possibility of its being made oc-
casionally a pretext for doing no-
thing, and that the indenture itself is
“nugatory and ridiculous,” we are, we
must confess, perfectly amazed at the
conduct of the man who, with any claim
to the possession of reason, sets himself
up as a defender of the obnoxious mode
of education which we thus publicly de-
nounce: nor can we help attributing to
him motives of the most designing and
dangerous description. For reasons
like these it is, that we have not hesi-
tated to say, at an early part of our
remarks, that the County Infirma-
ries, and those certain other *privi-*

leges reserved, are squandered upon the worse-educated members of the Irish College; nor could we possibly come to any other conclusion.

But it is the fashion, we are informed, for a few frontless individuals to start up and exclaim that the system "works well." Deluded, or deluding, or both, these persons are entitled only to our pity and contempt. They shall receive no answer but this from us—a formal and direct denial: *the apprenticeship system of the College of Surgeons in Ireland does not "work well;"* and there may be wisdom, as well as good logic, in not pressing us to the proof.

LONDON COLLEGE OF SURGEONS.

To the Editor of the London Medical Gazette.

SIR,

I CONGRATULATE the Members of the College of Surgeons that you have taken up their cause, and have expressed your opinion against the self-election and irresponsibility of the governing body of that institution. You have taken a view of the subject at once liberal and just, steering a wise course amid the dreams of enthusiasts, the evil designs of anarchists, the exclusiveness of wealth and rank, and the timidity of the lovers of things as they are.

Your correspondent, Chirurgus, objects to my observations on the late disturbances: it is true I was not an eye-witness, and I congratulate myself that I was not so; but, in common with many, I cannot help thinking that there has been, in the proceedings of the Council, an arbitrary spirit which I cannot but consider among the bad feelings of our nature.

I agree with Chirurgus, that, as members of the College, we are bound by the present charter and by-laws, but surely this is no reason why we should not endeavour to obtain a modification of them; and I confess I can neither see justice nor good policy in his proposition that members having a hostile feeling to the present system of government should, in the first instance,

get themselves disfranchised from its operation.

I am glad to find that the Council has deliberated on the proposition of altering the mode of government, in order to render it more in accordance with the spirit of the age. Unquestionably there are difficulties attending the subject: how, on the one hand, to extend reform far enough to satisfy the wishes of the more moderate and intelligent of their members, and on the other to maintain the dignity of the College as a scientific institution, and to avoid the intrigue and cabal necessarily attendant on popular elections. Nevertheless the difficulties are not insuperable, and I have no doubt a scheme of government might be formed which would satisfy so large a number of the members as would render it perfectly impossible for the lovers of anarchy in future to give disturbance. I do not see how the Council can expect, at this time of day, the sanction of the Lord Chancellor and Judges to new by-laws, while the charter continues so exclusive; but if, in the first instance, the government was reformed, who can doubt but that the Council would without difficulty obtain power to expel refractory members, and to prevent the recurrence of such a disgraceful scene as that which lately took place.

The framers of the present charter committed a great error in giving the denomination of "Members" to those whom, to all appearance, they intended should be only licentiates. They should have established two orders and two degrees of examination—one for Fellows and one for Licentiates; and the amount of education and the amount of fee should have differed accordingly. Surely it is not impossible to amend this error. Leave the present Members as they are, but constitute a new order of Fellows, who should afford evidence of much higher general and professional education than is now expected, and let all those who would wish to be Licentiates afford the testimonials now demanded for Members. The amount of education for the degree of Fellow should be such as to limit the number; they should not belong to any other medical corporation, and they should enjoy the privilege of choosing the Council and officers, none of whom should be elected for life. Such a plan would excite a spirit of emulation; it would induce

many who now combine trade with practice to discontinue such an unnatural union, and in my mind it would tend much to increase the respectability of the surgical branch of the profession.

With regard to the present long list of Members, a selection might be made by examination, or otherwise, to constitute the first Fellows; and if the list should be rather longer than could be wished, time will soon diminish it, and the evil would in a great measure be removed by making all the present Council tenants for life. The selection of the Fellows, I admit, would be difficult; to confine it to those who practise surgery alone, would limit it very narrowly. I know no purely surgical practitioner in this town but St. John Long, who, if he is not called to treat a surgical disease, loses no time in making it one. It is notorious that the majority of cases in which our leading surgeons are consulted, are medical; and it is utterly impossible to say where medicine ends and surgery begins. I believe the number of surgeons in this town who practise without supplying their patients with medicine, is considerably less than one hundred. It has been proposed to exclude all who practise pharmacy: if by this is meant those who sell medicine, I can agree to it; a medical practitioner has nothing to do with the sale of drugs; but if all those surgeons are to be excluded who supply their patients with the requisite medicine, I cannot. What constitutes the difference between such practitioners and the pure surgeon? The latter leaves his prescription to the chance of being well or ill compounded, or recommends some particular shop, and gets the credit of participating in its profits; and the former ensures the certainty of his views being complied with by having his prescriptions compounded in his own house. The older surgeons supplied their patients, not only with purely surgical means, as ointment, &c. but with medicine. I believe this was the case with the late Mr. Hey; and some of the present Council of the College have, if they do not now, kept pills, &c. for their patients.

There is more plausibility in excluding from the governing body of the College, Licentiates of any other medical corporation; but it is one of the most important charges against the Council that it has neglected the inte-

rents of the members, and rendered it necessary for them to obtain, before they can practise (in accordance with the customs of their country) a license to do so from retailers of sago and senna. It is, therefore, somewhat unjust now to draw such a line of distinction, when nine-tenths of the younger members of the College have become licentiates of the Apothecaries' Company, simply because the Council did not maintain the rights of their future members when the apothecaries' act passed. A member of the College of Surgeons cannot administer medicine to his patients without infringing the Apothecaries' act; while the licentiates of the Apothecaries' Company are at liberty to practise every branch of surgery without hindrance: nay, you will find that half the younger practitioners content themselves with the license of the apothecaries, and pay no regard to the College of Surgeons, and yet assume no other denomination than that of surgeon.

I have been asked by members of the Council, what good will be effected by the proposed change?—the efficient answer to which is, that it will prevent a more violent one. I believe that the affairs of the College are at present wisely administered, but they have not been always so. It is not many years since surgeons, grown grey in the service of their country, have found themselves obliged to enter the College by back doors, and treated with other indignities. Although the funds of the College may now be properly applied, they may not always have been so; and without the check of publicity, they might at some future period be perverted. Instead of the majority of the Council being as they now are, men of liberal and enlightened views, they might be the reverse; there is nothing to prevent such a contingency. The numbers from which the members of the Council can be chosen is at present so small that it is hardly possible to select, and circumstances will continue to diminish it; for the practice of the pure surgeon is daily encroached on by the younger physicians on the one hand, and the general practitioner on the other. Among the younger general practitioners there are few who do not perform many operations which formerly fell to the lot of the pure surgeon; and as the thirst for fame, &c. has in-

creased among us, and does increase, this will become still more general.

But the grand and important argument for the proposed change is the same as that which weighs with most persons in favour of the proposed reform in parliament—viz. to keep government out of the hands of enthusiasts and anarchists, by ranging on the side of those who wish to support our institutions a sufficient number of the community to withstand the attempts of republicans and others, who would destroy institutions which have been, and we trust will long continue to be, the glory of Englishmen and the envy of the world. The analogy between reform in the House of Commons and reform in the College of Surgeons, still farther holds—for who would not prefer things as they are to such violent changes as universal suffrage and election by ballot? But the object of the moderate reformers is to prevent such dreamers from trying their schemes. Who can doubt but that the College is better governed by the present system, and the surgical profession more respectable, than it would be on the French plan of free lectures and public examinations? What would be the effect if, as the Utopians wish, all persons presenting themselves were examined without being asked for certificates, or when and how they obtained their knowledge? Let the admirers of such a system look to France for its effects. What is the condition of the great body of medical practitioners in that country? There are, in Paris and the larger towns, a few who are respectable, but the mass are degraded and in disrepute. I believe the *pharmacien* is generally considered a more important member of society than the physician, or surgeon: this, I know, was the case in a French town with which I was intimately acquainted. We may, perhaps, with advantage emulate our neighbours in their ardent zeal for science, but there is nothing worthy of our imitation either in the government of their country, their institutions, or themselves.

I have also been asked why the members of the College who hold moderate views on the subject, do not meet and address the Council? Simply for the reason that they fear intemperate and over-zealous people would thrust themselves and their schemes forward, to

the injury of the cause. I trust there will be no occasion for any such meeting: the present Council consists, for the most part, of men of liberal principles and sound judgment, and there is reason to believe that they will themselves so modify the institution as to render any interference on the part of the great body of the members unnecessary. The object of such reformers as myself is not to destroy, but to uphold the College; and we think this will be accomplished by concession, and not by resistance—seeing that the ultimate effect of the latter, in all controversies, has been to favour anarchy and confusion.

With many thanks for the manner in which you have advocated the question,

I remain,

Your obedient servant,

LIONEL BEALE.

April 11, 1831.

SOCIETY OF APOTHECARIES.

To the Editor of the London Medical Gazette.

Apothecaries' Hall,
April 7, 1831.

SIR,

NUMEROUS applications continuing to be made by gentlemen in almost every department of medical science, desiring to be recognized as lecturers by the Court of Examiners of the Society of Apothecaries, the Court feel anxious, in order to save the time now necessarily expended in correspondence with each successive applicant, that the rules which the Court have laid down for their own guidance in the recognition of the various courses of lectures required by them should become generally known to the profession: they have therefore desired me to transmit these rules to your journal, with a request that you will be kind enough to give them an early insertion.

I have the honour to be, sir,

Your obedient servant,

JOHN WATSON,
Secretary to the Court of
Examiners.

RULES to be observed in the Recognition of LECTURERS, extracted from the Minutes of the COURT OF EXAMINERS, dated November 18th, 1830.

Resolved—That any person being a Member of the Court of Examiners

shall not be recognised as a Lecturer on any branch of Medical Science.

Resolved—That the Court will not recognise any *New Teacher* who may give Lectures on more than *two* branches of Medical Science; nor will they sanction a Teacher already recognised in giving Lectures on any *third* branch of the Science, if already he gives Lectures on *two*.

Resolved—That the Court will not recognise a Teacher until he has given a Public Course of Lectures on the subject he purposes to teach; but if, after such preliminary Course of Lectures, the Teacher should be recognised, the Students' Certificate of Attendance on that Course will be received.

Resolved—That the Court will not recognise a Teacher until he has produced very satisfactory Testimonials of his attainments in the science he purposes to teach, and also of his ability as a Teacher of it, from persons of acknowledged talents and distinguished acquirements in the particular branch of science in question.

Resolved—That satisfactory assurance shall also be given that the Teacher is in possession of the means requisite for the full illustration of his Lectures, viz. that he has, if lecturing—

On **CHEMISTRY**, a Laboratory and competent Apparatus:

On **MATERIA MEDICA**, a Museum sufficiently extensive:

On **ANATOMY AND PHYSIOLOGY**, a Museum sufficiently well furnished with Preparations, and the means of procuring recent Subjects for Demonstration:

On **BOTANY**, a Hortus Siccus, Plates or Drawings, and the means of procuring fresh Specimens:

On **MIDWIFERY**, a Museum, and such an Appointment in a Public Midwifery Institution as may enable him to give his Pupils practical Instructions.

Resolved—That the Lecturer on the **PRINCIPLES AND PRACTICE OF MEDICINE** must be, if he Lectures in London, or within seven miles thereof, a Fellow, Candidate, or Licentiate of the Royal College of Physicians of London; and if he Lectures beyond seven miles from London, and should not be thus qualified, he must be a graduated Doctor of Medicine of a British University of four years'

standing (unless previously to his graduation he had been for four years a Licentiate of this Court.)

Resolved—That the Lecturer on **MATERIA MEDICA AND THERAPEUTICS** must be a Fellow, Candidate, or Licentiate of the Royal College of Physicians of London; a graduated Doctor of Medicine of a British University of four years' standing, (unless previously to his graduation he had been for the same length of time a Licentiate of this Court); or he must be a Licentiate of this Court of four years' standing.

Resolved—That the Lecturer on **ANATOMY AND PHYSIOLOGY** must either be recognised by the Royal College of Surgeons of London, or must be a Member of that College of four years' standing.

Resolved—That the **DEMONSTRATOR OF ANATOMY** must either be recognised by the Royal College of Surgeons of London, or must be a Member of that College.

REPORTS OF CASES OCCURRING AT PUBLIC INSTITUTIONS.

[The case reported from the London Hospital last week was inserted inadvertently in the department of "Cases occurring at Public Institutions," as it took place in the private practice of Mr. Robinson, of Cooper's-Row, Trinity-Square, by whom it was communicated.]

GUY'S HOSPITAL.

Removal of an immense Tumor, occupying the region of the Pubes and Perineum—Fatal result.

Hoo Lo, æt. 33, was sent over to this country, at his own express desire, with the view of having a large tumor removed, which involved the penis and testicles, and appeared to be a preternatural growth of the scrotum and skin of the penis. The account which he gave to the surgeons of Guy's hospital, through the medium of a Chinese interpreter from Canton was, that he was a native of the country beyond Macao; that ten years ago he first perceived the 'extremity of the prepuce to swell and become hard, and that it continued to increase for about four years. At the end of this period the scrotum began gradually to enlarge up to the present time, when it had acquired the enormous magnitude of four feet in circumference, its increase having been for the last two years remarkably rapid. During

the period of stay in this country, and also of his voyage from China, his health continued to be uninterruptedly good, his spirits unbroken, and, when questioned on the subject of the operation, he uniformly gave cheerful answers, and signified his assent to whatever might be thought best to be done for its removal. His diet in the hospital consisted of a large quantity of rice, with fish and meat, and an allowance of tea. Mr. Key abstained from giving him any purgative physic, for fear of reducing his pulse, which, although he appeared robust, was not characterized by much power; and he also carefully noted the condition of his tongue, and the frequency of his evacuations, that the progress of his convalescence might not be retarded by diarrhoea. Saturday last was fixed upon for the operation to be performed, and a large concourse of medical gentlemen attended.

The appearances of the tumor at the time of operation were as follows:—Its body was of a flattened spheroidal form, four feet in circumference, and attached by an equilateral triangular neck of half that size, which opposite the pubis measured exactly eight inches across, and extended about two inches and a half beyond each external abdominal ring. The other sides corresponded to the lateral boundaries of the perineum, and met at an acute angle immediately before the anus. Its length was such, that when the man was erect, its lowest point was about opposite to the tubercles of the tibiae. On its neck and lateral portions, the integuments were healthy in appearance, while on its anterior part they were considerably thickened, indurated, and had a tuberculated, honey-comb appearance, with a few small ulcerations, from which a slight serous transudation took place. Near the centre of the body of the tumor, an irregular projection, supposed to be an elongation of the prepuce, concealed the orifice from which the urine escaped. The integument covering this projection seemed more diseased than that of any other part of the tumor, being closely studded with numerous small elevations of the cutis. And from this projection, an elevated ridge extended backwards through the median line of the tumor, and evidently was the enlarged raphe of the scrotum.

The plan of the operation was this:—To make three flaps; one from the upper part of the neck of the tumor, to envelop the penis, and a semilunar one on each side, to form a covering for the testicles and perineum. As no doubt was entertained of the penis and testicles being unimplicated in the disease, it was intended, if possible, to save those organs: in compliance with this, an incision was commenced immediately below the right external abdominal ring, and carried downwards and slightly inwards for

about an inch; then outwards and immediately inwards again, so as to form a small angular flap; then continued over the fore part of the tumor, for about four inches (that being the extent of healthy integuments.) A similar incision was made on the opposite side of the same length, and then a transverse one, to connect the two. The flap thus formed was dissected back, and laid upon the abdomen. A semilunar incision was then made upon the right side, commencing nearly at the same point as the former, and terminated near the verge of the anus. In making this incision, several large veins were divided, which bled freely, but were immediately secured by ligature. This flap was then dissected back, during which several large vessels were tied. At the lower part of this flap, one vein particularly large was secured. A flap of the same kind was made upon the opposite side, during which but comparatively few vessels were divided. The next step of the operation consisted in laying bare the cords; and in cutting down upon the right one, a small artery, the first that was seen, was tied. At this time the patient's powers appeared so depressed that Sir A. Cooper proposed that no further attempt should be made to save the penis and testes; and Mr. Key, being of the same opinion, passed a temporary ligature around each spermatic cord, and then divided them. A band was then passed around the penis in the same manner, which was then cut through, about an inch and a half from its root. The tumor was now dissected from the perineum, which occupied but a very short space of time: in this separation, two small arteries were divided and instantly secured. The ligatures were then removed from the cords and penis, and each spermatic artery tied separately.

During the greater part of the operation, and especially towards the latter end, the man's powers were greatly depressed, and two fits of syncope occurred; yet after it was finished, his pulse, though weak, could still be felt at the wrist. However, in a few minutes, another fit of syncope came on: from this he never rallied, although every means which could be suggested were tried; warmth to the stomach, warmth and friction to the extremities, artificial respiration, injection of warm brandy and water into the stomach by the syringe, and lastly, transfusion of blood to the amount of about eight ounces.

The time which the operation occupied was an hour and three-quarters: this was principally occasioned by the necessity of tying so many vessels, the whole of them veins, with the exception of three very small arteries, besides the two spermatic; and by being delayed during the two fits of syncope. Although upwards of thirty ligatures were

applied, not more than twenty ounces of blood were lost, and of this scarcely one ounce was arterial.

As it is difficult by a mere verbal description to convey an accurate idea of the design of the operation, it may perhaps facilitate the comprehension of it, if the dimensions and purposes of the flaps were mentioned. That part of the upper flap, between the commencement of the incision and the small projecting angles, was two and a half inches in breadth, and intended to cover the parts immediately above the penis; the angular portion three inches in breadth, to surround the root of that organ, and the remaining part of the flap two and a half inches in breadth, to cover the body of the penis. The lateral flap on each side commenced from the same point with the former, and was intended to unite with that part of it covering the pubes, as far as the root of the penis, and at this point meeting with its fellow, they formed together a receptacle for the spermatic cords and testicles, and thence gradually sloping, met in the median line, and furnished a covering to the perineum. The length of these flaps was six inches, and their breadth at the greatest convexity two inches and a half each.

Few operations, perhaps, have been better designed, or more skillfully, dexterously, or coolly performed, than this; which, although it terminated fatally, will leave a lasting impression in the minds of those who witnessed it, of the excellency of the surgeon by whom it was performed. The weight of the tumor, when removed, was fifty-six pounds eight ounces. Mr. Key was decidedly of opinion, and expressed himself to that effect, that the patient's death was occasioned by the loss of blood, which, though by no means excessive, from the precautionary measures adopted, yet made an impression on the feeble system of an Asiatic, which his powers were unable to overcome. It should also be remembered that the quantity of blood in the tumor, perhaps one-fourth in the whole body, was withdrawn from the circulating mass, and thus tended to lessen materially the supply which the right side of the heart required.

The tumor was found to consist of the cells of the cellular membrane enlarged, and containing a yellowish dense serum. Some parts of the tumor contained indurated masses, resembling cartilage. The tumor when entire, undulated, and was thought by some to contain a large quantity of fluid in one cyst; but the fluid was contained, as is usual in elephantiasis, in cells of various dimensions, but none exceeding a marble in size. The testicles were found entire within the tumor, and healthy; the cords being elongated to several inches, and the cremaster muscles as thick nearly as the finger.

The penis was also similarly imbedded in the substance of the mass, and perfectly healthy.

The length of time occupied in the excision of the tumor was occasioned by the care required in cutting down upon the cords and penis, and by the operator being compelled, by the patient's state, to suspend the use of the knife, as a sudden jet of blood from a large vessel might have instantly proved fatal. Now that the event of the case has proved unfavourable, it may be asked whether it might not have been successful if the attempt had not been made to save the organs of generation? The operation would certainly have been materially expedited by removing the whole tumor and its contents, without the dissection required to deliver the penis and testicles. But a charge would have been made (and with some degree of plausibility) against the operator, that his sole desire was to remove the tumor at any expense to the patient; and that some attempt should have been made to have saved the organs. If successful, the operation would have been regarded as unsurgical, and the operator probably stigmatized by some of the opprobrious epithets with which the public have been kindly furnished by those who pretend to watch over the interests of the medical profession. If unsuccessful, the want of success might have been attributed to the division of the cords and penis.

It may be satisfactory to state, that, since the above was written, an examination of the body has taken place, which confirms the opinion of Mr. Key that he died of the loss of venous blood. The heart was empty, with the exception of a small quantity of blood in the right auricle; probably part of that which was transfused into the cephalic vein of the right arm. The liver was also exsanguineous, and the whole of the viscera were remarkably pallid. A more than usual quantity of adeps was found lying between the peritoneum and the bladder, and also generally in the cellular membrane investing the outer surface of the peritoneum.

It would be unjust not to mention that the gentleman who volunteered the offer of eight ounces of blood, for the purpose of transfusion, was Mr. Ford, pupil to Mr. Rundle, surgeon, in the city.

NOTE ON MR. AMOS'S LECTURE, PUBLISHED IN OUR LAST.

At page 33, we report Mr. Amos to have said—after mentioning that penetration, according to Lord Landsdown's act, constitutes the essence of rape—"that the rule, he conceived, was not so firmly established

but that it would bend to the weight of medical opinion, if decidedly opposed to it." The ambiguity contained in this assertion resulted from a casual omission of the following passage:—

"With regard to the proof of penetration in certain cases, possibly Lord Hale's authority may be referred to. In his Pleas of the Crown (vol. i. p. 628) he says, 'To make a rape, there must be an actual penetration. Emissio seminis does not singly of itself make a rape; but it is, indeed, an evidence of penetration.' Suppose, how-

ever, a case actually to occur where there was no direct evidence of penetration, but an emissio seminis is proved; might a jury infer the fact of penetration from that of the emission? Lord Hale would probably be cited for the affirmative, especially as he is copied by later writers: but his decision, I conceive, is not so firmly established," &c. (as above).

Mr. Amos, in fact, was anxious to shew that this was a point upon which Lord Hale's authority ought not to have more, or so much, weight as that of a medical man.—E. G.

EARLY INTELLIGENCE—NAVAL SURGEONS.

Gazette, March 12th.

We alluded in a former article to certain arrangements then in progress, and we may now mention that it has been in contemplation to make them (i. e. naval surgeons) commissioned officers.

The fact is—as we stated last week—the answer of the Lord Chamberlain, with regard to the admission of naval surgeons at court, was obtained by a ruse; and as to the rest, our contemporary knows nothing whatever about the matter except what he

Lancet, April 9th.

In concluding this notice, we feel the greatest possible satisfaction in announcing that naval surgeons and assistant surgeons are to be made commissioned officers.

finds in the pages of this journal: *par exemple*—the intention of giving commissions to naval surgeons is brought out as something new just four weeks after we had announced it.

NARCOTICS—CONIUM.

To the Editor of the London Medical Gazette.

SIR,

I request the favour of your permission to announce to the profession that, as a commencement of a series of narcotic preparations which will be continued throughout the season, hemlock is now under process at this place. The pharmaceutical analysis of the plant will be shewn to such members of the profession as may be pleased to call at the Laboratory; and the methods used in the preparing the medicines, the value of which is generally acknowledged, will be fully explained through the medium of a future number of your excellent journal.

I have the honour to be, sir,

Your obedient servant,

R. BATTLE.

Ophthalmic Hospital,
Moorefields, April 14, 1881.

BOOKS RECEIVED FOR REVIEW.

An Introductory Lecture on Midwifery; comprising a Critical, Historical, and Ethical Disquisition on that Branch of Medical Science. Delivered February 7th, 1831, at the School of Medicine in Liverpool, by Samuel Malins, M.D. Bachelor of Letters of the University of Paris, &c. &c.

A Manual of Surgery, founded upon the Principles and Practice lately taught by Sir Astley Cooper, Bart. F.R.S. &c. and Joseph Henry Green, Esq. F.R.S., &c. Edited by Thomas Castle, F.L.S., &c.

NOTICES.

The papers of Dr. Griffin and Mr. Divitt in our next.

We cannot insert the letter of a "Senior Student," which we have just received.

Mr. F. Cooper's communication has come to hand.

It is requested that all letters connected with advertisements be addressed to Messrs. Longman and Co., and not to the Editor of the Gazette.

W. WILSON, Printer, 57, Skinner-Street, London.

THE LONDON MEDICAL GAZETTE,

BEING A

WEEKLY JOURNAL

OF

Medicine and the Collateral Sciences.

SATURDAY, APRIL 23, 1831.

OPHTHALMIC SURGERY.

To the Editor of the London Medical Gazette.

SIR,

It must have excited surprise in a large portion of the profession, that, since the publication of Dr. Jacob's remarks on the nitrate of silver in the Dublin Hospital Reports, no one except Mr. Hunt, of the Manchester Ophthalmic Institution, has defended the use of that very popular and valuable remedy*. As it is at this moment constantly employed by some of the most eminent practitioners of the day, one should perhaps attribute their silence on the subject to the conviction, that such an utter mistake as Dr. Jacob seems to have fallen into, respecting a remedy daily acquiring new credit, could have little influence on the public mind. It ought to be recollected, however, that the opinions of a gentleman who has for some years been offering useful contributions to ophthalmic surgery, are very likely to influence those who are engaged in general practice, and whose experience in a particular class of diseases is too limited to admit of their forming conclusions for themselves. All medical men, too, are aware how vacillating and unsteady has been the fame at one time or another of the most established articles of our materia medica, and that it is as necessary to distrust a dis-

position to hunt down the reputation of remedies in general estimation as the enthusiasm which proclaims a specific in the most inert. These considerations tempt me to believe that a few observations, in confirmation of those already before the public, may not be unacceptable to your readers.

On first reading Dr. Jacob's paper, I was doubtful whether he meant to condemn the use of the nitrate in ulcerated cornea only, and mentioned the stains of the conjunctiva merely as results to be guarded against in its free employment; but looking over it again, it appeared obvious that the whole tone of his observations went to deter practitioners from its use in any case; and in fact he candidly states, "he entertains no apprehension, that by diminishing the confidence of practitioners in it, surgery will sustain any serious loss." How any surgeon of extensive experience in those complaints, and I must suppose extensive information, could make such an assertion, while to go no further he has Mr. Guthrie's cases of its extraordinary power in purulent ophthalmia before him*. I cannot possibly understand. He could not either have seen it employed by others, or made trial of it himself, in the manner Mr. Guthrie recommends, or he would have been convinced, as I have been, that in such cases, at all events, its loss would have been as great as that of quinine in ague.

Dr. Jacob's quotation from Mr. Lawrence's lectures, "that he does not see how lunar caustic is to act upon the diseased eye beneficially," appears to me likely to mislead the public as to that

* The interesting paper of Mr. Estlin (*Gazette*, No. 173) seems to have escaped the notice of our correspondent. It is remarkable that the insertion of Dr. Jacob's observations in this journal has called forth not less than three valuable original papers on the same subject; viz. one from Mr. Hunt, of Manchester, a second from Mr. Estlin, of Bristol, and a third from Dr. Griffin, of Limerick.

* Given in the *Medical Gazette*, the *London Medical and Physical Journal*, and I believe in the *Medico-Chirurgical Review*.

gentleman's opinions. I believe in the foregoing sentence Mr. Lawrence refers solely to its use in simple ulceration of the cornea, as he distinctly recommends it in strumous and purulent ophthalmia, and in opacities, in which it necessarily requires to be continued for a length of time. In ulceration, or sloughing of the cornea, I believe most practitioners will agree with Mr. Lawrence, that the healing process commences as soon as the inflammation or irritation which occasioned the ulceration is removed, and therefore the employment of stimulants is unnecessary; but this applies only to ulceration, the consequence of healthy inflammation. There can be no reason why the ulcerative process should not at times take on a morbid character in the cornea, and be benefitted by different plans of treatment—stimulant or soothing, as it does in other tissues. If the medical art deserves the name of a science at all, it is on the presumption that there are certain general principles, to the application of which we may look when experience fails us; one of these is, that the same curative means usually apply to the same diseases, at least in similar textures, wherever situated. Why then, when ulcers of a certain description, whether in the mucous, serous, or cellular tissues, are wonderfully improved by the application of caustic, are we to consider it inapplicable, under any circumstances, to the cornea alone? It seems very remarkable, that almost immediately after the late Dr. Armstrong suggests the probability of benefit from laying open the trachea, for the purpose of applying nitrate of silver to ulcerations there, and laments the impossibility of getting at or curing them by any other means, we should be cautioned not to make use of it in similar affections of the cornea, which are so easily and readily come at; as if, by an extraordinary perverseness, we always reached at unattainable good, and neglected or undervalued that which was already in our hands. With respect to any practitioner not understanding how the caustic is to act beneficially in those cases, I do not perceive how the value of a remedy is at all affected by the rationale of its action being unknown: to this moment the doctrine of simple inflammation is as great a puzzle to the pathologist as in the days of Celsus. Do we understand why heat and cold

are equally applicable to the cure of burns: or why the medical profession is divided between turpentine and snow? Do we know why the antiphlogistic plan, on the one hand, and that of administering cubebs on the other, should be successful in the cure of gonorrhœa? Or why the large abstraction of blood, the use of purgatives, and cold lotions, should prove less immediate in removing the inflammatory state of the conjunctiva in purulent ophthalmia, than a burning composition of lunar caustic, in the proportion of ten grains to the drachm, put beneath the eyelids? The truth is, if we were to undervalue the curative power of remedies, the manner of whose action we could not comprehend, we should have little of our *materia medica* left to us.

That there are two very opposite, yet successful modes of relieving external inflammations at least, we have ample evidence, although we had no such experiments as those of Drs. Philip and Hastings to confirm our inferences. The instances they give in which the application of spirits of wine and oil of turpentine to the inflamed web of a frog's foot, diminished the vascularity just as blood-letting would have done, are sufficient to shew, whatever the *modus operandi* may be, it cannot consist solely in lessening the action of the heart and arteries, as one might conclude, if the antiphlogistic treatment alone answered. It is somewhat to the credit of medical science that we can admit thus much without falling into absurdity, as otherwise one could not walk into the two great ophthalmic institutions of London and Westminster, and observe their opposite modes of practice, without concluding that ophthalmic surgery was all mere empiricism. The general, or medical treatment, is perhaps the same in both; but for the surgical—at one, the strumous, the pustular, and the purulent ophthalmia of infants, is successfully treated by leeches, blisters behind the ears, and the sulphate of zinc solution, in the proportion of one grain to the ounce; at the other, they get well, in many instances, I believe, more rapidly under the use of strong nitrate of silver-ointment, or solution; all our ideas of the stimulant action of which, in the last-mentioned disease, would lead to the apprehension of chemosis and sloughing. I have myself been educated under the antiphlogistic system,

and am fully aware how much the use of stimulants in the treatment of diseased eyes was at one time misapplied; but the experience of numerous cases has now convinced me that no argument can hold against a remedy merely for its abuse, and I believe conjunctival inflammation in general may be subdued more readily by the proper employment of the nitrate of silver than by mere depletion, however active. This has been so forcibly impressed on my mind, that, applying the experience to inflammation of similar textures in other situations, I should to-morrow, if called upon in a case of recent gonorrhœa, feel no hesitation, after slight depletion, either by purgatives or the lancet, in introducing a small bougie into the urethra, greased with two or three grains of the ointment which Mr. Guthrie uses in purulent ophthalmia. I see no reason for doubting that it would give as speedy and effective relief as it certainly does in the latter disease.

With respect to the stains of the conjunctiva produced by the nitrate, they have occurred to me so seldom in the practice of a large ophthalmic institution, that I must look upon the accident as very rare indeed. I have been in the habit of employing the ointment of nitrate of silver before spoken of, for months, in dense opacities of the cornea, and out of all the patients with whom it was used, I know but two or three in whom the conjunctiva presented the appearance of a light olive stain, and in these it did not at all amount to deformity: the livid tint I never met with at all. I know not whether an aqueous solution may be more likely to occasion these stains than an ointment, but I have been in the habit of using the former also freely without any ill effect. I agree fully with Mr. Hunt in thinking that there is no more analogy between the manner in which the solution of caustic may be supposed to act when applied to the eye, and the marks produced by the explosion of gunpowder, than there is between washing the skin with a solution of gunpowder and tattooing.

I am, Sir,

Your very obedient servant,
WILLIAM GRIFFIN, M.D.

Physician to the Limerick Ophthalmic Hospital, &c. &c.

48, George-Street, Limerick.

STETHOSCOPIC PHENOMENA.

To the Editor of the London Medical Gazette.

College of Surgeons, Glasgow, April 14, 1831.

SIR,

I AM induced to send you the following particulars of two cases at present under my father's care in the clinical ward of the Glasgow Infirmary, as they are both extraordinary, and of considerable importance in the art of auscultation. As both these cases are more interesting in a physiological than a pathological point of view, I will endeavour to render them as concise as possible by omitting all the remedial measures resorted to, as these were directed rather to the general disease under treatment, than to the peculiarities of vascular action which have attracted my attention.

I am, Sir,

Your obedient, humble servant,
DAVID BADHAM, M.B. Oxon.

The first case I shall mention is one of apparently simple dropsy (ascites) in a young woman of twenty-nine years of age. The swelling of the abdomen is but of eight or nine weeks standing, and none of the general symptoms are very urgent. On hearing her complain of headache, vertigo, startings during sleep, and dimness of vision—and on finding that she had suffered considerably for the last six months from various functional derangements, and observing that her countenance was of that peculiar hue which renders organic disease not antecedently improbable—I was induced to resort to the stethoscope as the only means of informing myself respecting the true cause of her disease. The following results were obtained:—

Above the *left* clavicle, in the course of the carotid artery, and over a space of a few lines only in extent, a sound is heard, which neither answers precisely to the *bruit de soufflet* nor to the *bruit de scie*, but yet has a general resemblance to both. Over nearly a corresponding point of the *right* clavicle a sound of a very different character is perceived, and it is one to which I am at a loss to refer any of those to which Laennec has given a name: it resembles that stridulous kind of noise which we produce when we wet the finger and rub it up and down the smooth surface of a plate of glass. The cause of this phe-

nomenon became a question of interest, and one of which I do not think the solution is very easy. Is it a noise made by the artery itself during its action, or is it the reaction of the blood-vessel on some of the neighbouring bronchi at the summit of the lung, and of the same nature as the stops in a wind instrument? The first should seem the more probable supposition; for, on desiring the patient to hold her breath, the sound scarcely varied: the varying calibri of the bronchi did not either materially diminish, increase, or change its character. But what is still more remarkable, the ear obtains at the same time, and intimately commingled with it, the impression of another sound (often alluded to by Laennec)—namely, a loud stunning noise, like the not very distant monotony of the sea. What renders the latter sound particularly interesting and worthy of mention in this case, is, first, that it is (contrary to former observations) unintermitting; it seems gradually to swell till it reaches its full volume, and then subsides, but instantly begins to swell again;—I mean to say, that the wave of sound varies in intensity, but that there is no pause. Secondly, it illustrates an observation of Laennec's, "that both the purring thrill and the *bruit de soufflet* may exist in the heart or arteries, in connexion with an increased or a decreased action of either. Here the observer is particularly struck with the loudness of the roar contrasted with the feebleness of the pulsation of the vessel. Does not this fact materially invalidate Laennec's explanation of the *bruit de soufflet*, which assigns as its real cause a *muscular spasmodic action of the heart, or of the artery, where it resides?* If such were, indeed, the fact, it appears obvious to ask, how comes it that a *diminished* muscular action should produce the same result as an *augmented* one? M. Laennec further observes, that the *bruit de soufflet* ceases during the systole of the heart and arteries: but is not this precisely the time when, if his explanation were correct, we might expect to hear it? As this author has distinctly shewn, from its existence being confined to parts of the arterial system, that this "stunning roar" cannot depend upon any condition of the blood, or to the manner in which it is moved as a mass, I am afraid that, if my objections are valid, the real cause of this sound is yet to be sought.

The vessels on the left side of the neck yield no *bruit de soufflet*, yet their action is apparently the same with those of the right. How would M. Laennec explain this, on his supposition of a spasm of the arteries producing the sound in question? This modification of the "bellows blast" exists, not only in the arteries of the right side, but also in the heart; it is not confined to the præcordial region, but diffused over the whole thorax. The impulse communicated by the right ventricle is at the same time exceedingly small. The last circumstance to be mentioned, is the existence, in the heart itself, of an unusually loud "*bruit de râpe*," or rather, according to my own comparison, the noise of a *mouse nibbling his way behind a wainscot*; and those who have heard it think it correctly represented by this sound.

This curious noise is heard best over the origin of the pulmonic artery, and is most decidedly intermitting. Martinet and others are, then, incorrect in describing the *bruit de râpe* as a constant phenomenon; a mistake the more remarkable as Laennec has himself instanced a case where this intermission was observed.

On the whole, the diagnosis I have ventured to give in this case, from the data which have been described, is, "dilatation of the right side of the heart, without any corresponding hypertrophy and with probable narrowing of the opening into the pulmonic artery." It is not from the loudness and clearness of the bellows sound of the heart that I infer dilatation of the right side, but because the extent of *any* sound clearly emanating from the heart, over a region where *no* sound should be heard naturally, and the almost complete absence of impulse from the right ventricle, are otherwise inexplicable.

The second case I have to mention is that of a man stricken with paralysis of the right side, in whom the following very interesting peculiarities of vascular action presented themselves.

1. The whole *venous system* of vessels was observed to pulsate. On looking attentively at any of the superficial veins on the hand, arm, or elsewhere, it was quite evident that they moved, and in that wavy manner which has several times been noticed in the jugulars, but very rarely, I believe, over the system

generally. The jugulars themselves were seen to dilate and contract alternately, much in the same way that a leech is observed to do when sucking.

As to the arteries: 1st, the minutest twigs of this system of vessels are observed to pulsate. I cannot give a better idea of the extent to which this phenomenon has proceeded than by mentioning, that the small branches of the coronary artery of the mouth may be seen and felt to pulsate over the nose and up to the inner canthus of the eye; that in consequence of this inordinate action in vessels of so small a calibre the surface of the whole skin seems alive; that so enormous (for that is the word) is the impulse of the carotids and subclavians, on the paralysed side particularly, that at each pulsation the patient seems to receive a shock as if he were slightly electrified. 2. The arterial action of the paralysed side is nearly twice as strong as that of the other; affording a striking evidence of the independent action of the arteries. 3. The *thrilling purr* is most distinctly felt over the subclavians and carotids of both sides, but best on the side where the arterial action is least: on grasping the wrist of the patient within my hand, I also seem to recognise it in the pulse. This purr, according to Laennec, never occurs alone, but is always accompanied by the "*bellows blast*;" accordingly, 4thly, over whatever artery the cylinder is placed, a *bruit de soufflet* is heard: this, in the larger vessels, was always more perfect on that side where the arterial action was least, but it was easily produced in full perfection on the other by simply compressing the artery from above, and so diminishing its action; so that we may infer from this, that too much action in the arteries is destructive of this phenomenon. The *bruit de soufflet* is loud over the radial, ulnar, and other less considerable arteries; it is also attended with a sort of chirping, particularly at the right side. It extends likewise to the heart. The action of this organ is moderate and normal. A well-marked *bruit de râpe*, synchronous with the pulse, is heard over the third rib of the right side, near its junction with the sternum. As there is no deficiency in the natural impulse of the right ventricle of the heart, so there is no evidence of there being dilatation of this side; and we have here the remarkable

phenomenon of *pulsation of the jugulars, without this organic lesion of the heart, with which all writers on this subject have held it to be inseparable.*

CASE OF ENORMOUS TUMOR OF THE SCROTUM,

In a Native of the Island of Tahiti (Otaheite) Southern Pacific Ocean.

By GEORGE BENNETT,

Member of the Royal College of Surgeons in London, &c. &c.

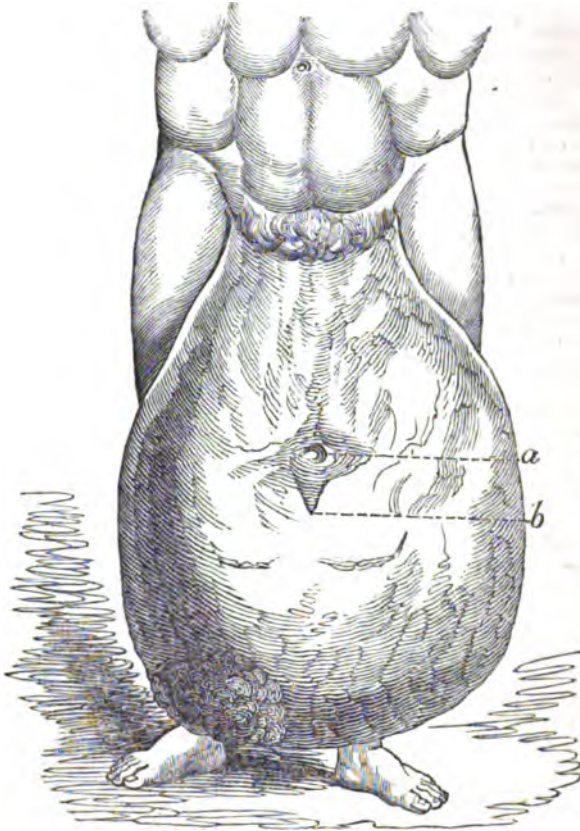
ENLARGEMENT of the testes, scrotal tumors, and hydrocele, are common diseases to which the inhabitants of Tahiti, and other islands in the Southern Pacific, are subject; nor are they confined to the natives alone, as Europeans, after a long residence, are equally liable to those affections. Although there were several cases of scrotal enlargement on many of the islands I visited in the southern ocean, that which I subjoin is the only one, extraordinary from its magnitude, which came under my observation. The question may arise—to what are we to attribute the disease? To this it will be difficult to find a satisfactory answer: whether it ought to be attributed to climate, diet, a licentious mode of life, or the idiosyncrasy of the individuals, it is at present impossible to determine. It is supposed by some to depend upon their food, or some peculiarity in the water: a residence in low situations: a long and continued use of the water contained in the unripe cocoa-nuts (which is so much used as a beverage among the natives of these islands), and peculiarity of climate, are equally assigned as the causes of its production; while, among the different hypotheses, it is difficult to form a correct opinion. That it prevails to a great extent in tropical countries, and in those particularly which are low and in the vicinity of the sea, while it is rarely or never seen to exist in cold climates, is not to be disputed. I have heard it stated, that the low and peculiar manner of living among the natives may render them liable to this disease; but we find it at the same time among Europeans, to whom the same cause does not apply. The *buenemia tropica*, or swelled leg of Good—the *fêfê* of the Tahitians—is

102 MR. BENNETT'S CASE OF ENORMOUS TUMOR OF THE SCROTUM.

also very prevalent, and is found accompanying the scrotal enlargement; and in the case I am now about to relate it is worthy of remark, that, from the man's statement, periodical pains come on in the tumor, accompanied by constitutional disorder, as in those paroxysms to which a person suffering under elephantiasis is liable. Bronchocele, which is, I believe, found exist-

ing in every climate, does not prevail to any extent among these islands; a few cases, indeed, are occasionally met with, but the complaint is comparatively rare.

During a visit to the island of Tahiti, in October 1829, the subject of the enormous tumor of which a rough sketch is annexed, came under my notice. He is named Victorio Pantoha,



a—Depression where the orifice of the urethra is situated.

b—Pendulous flat, like a portion of the prepuce.

and is a native of Mexico, but had resided for upwards of twenty-eight years in the island of Tahiti. He was about fifty years of age. The first commencement of the tumor that he observed was about nine or ten years ago, in the form of a swelling on each side of the groin, which gradually increased in size, descended, and (*he says*) united and formed one mass, entirely covering

the penis. The tumor has been gradually increasing from that time, and has now attained the enormous dimension shewn in the above cut. It was at some parts smooth, at others had a wrinkled appearance, excepting at the lower part of its right side, which was tuberculated and livid: the general colour, however, was a dirty yellow. The tumor was very callous to

the touch, except at the upper part about the pubes and a few inches below. The spermatic cord was not affected. The penis was not visible, nor were the testicles to be discovered, though he remarked to me that he felt one sometimes on the right side, which seemed to be of the natural size; but I could not feel it, after an accurate examination. He describes the tumor as still gradually increasing in size; it must soon, therefore, touch the ground, as it nearly does so at present. He states that he suffered much pain during its growth, and does not now rest well at night, from pain which he refers to the lumbar region, increased by walking or standing for any length of time, which may readily be attributed to the enormous weight of the tumor. During the time that I was making the accompanying drawing, I was obliged often to stop, that he might sit down, on account of the uneasiness and pain in the loins which the standing posture occasioned. His countenance has an anxious appearance, and, as well as the body, was much emaciated; the lower extremities were affected by the *féfé*, or enlargement resembling elephantiasis. Before this tumor appeared, he described himself as having been a stout and strong man. His appetite is still good, and he says that if he does not satisfy his hunger immediately, he suffers much pain about the stomach. His bowels are generally regular, and he passes his urine freely; but when the tumor becomes red and painful, which he describes as occurring at times for about the space of a fortnight or three weeks, with febrile symptoms, he then passes his urine almost every two or three minutes. When this pain comes on, he feels it extend around the margin, but not in the centre of the tumor. The pain, he further observed, extended over the whole of his body.

The orifice of the urethra terminates nearly in the centre of the tumor, with an appearance resembling a frænum below. He permitted me to cut into the substance of the tumor, when I found it to be composed of an indurated substance, about the consistence of cartilage, and of a similar white colour. A very small quantity of blood flowed from the incision, which was about an inch in depth. He said that the pain he felt from the incision was "a mere nothing." If the tumor strikes against

a stone, or a tree, he says that he does not feel it. The weight of the tumor, so far as it could be ascertained, was about 96 lbs. avoirdupois, and the size, by careful measurement, was found to be as follows:—

The length, from the crest of the pubes to the base of the tumor, 2 feet 5 inches. Circumference of the upper part, just below the pubes, 21 inches; of the centre, 4 feet; of the largest part, just below the urethra, 4 feet 8 inches.

On my arrival in England, which has just taken place, I was informed of an operation having been very lately performed at Guy's Hospital, in a somewhat similar case, the subject of which was a native of China. The operation terminated unsuccessfully, and I shall make no comments upon it.

London, April 14, 1831.

REMARKS

ON THE

GOOD EFFECTS OF CALAMINE

IN PREVENTING

THE PITS OF CONFLUENT SMALL-POX.

To the Editor of the London Medical Gazette.

SIR,

THOUGH since the introduction of vaccination, small-pox has ceased to be the general scourge it was formerly, still instances of that loathsome disease occur occasionally; and it must be satisfactory to the profession to be in possession of an expedient which may deprive the disease of half its ill consequences, by preventing its disfiguring effects. It may be a satisfaction, and perhaps an argument in favour of vaccination, to know, that even inoculation itself will occasionally fail, in protecting a person from a recurrence of the disease in its most virulent form. As the subject of the present paper, though he had been inoculated in his infancy, took the disease, I trust that the experience of others will confirm the following statement. It is not my intention to enter into a detail of the constitutional management of the case, but to explain the manner in which the disease was treated locally, and with what consequences.

About the tenth day, my patient

(aged 24) was much exhausted by his disease; the cuticle, from adhering to the bed-clothes, was abraded to the extent of six or seven inches on each hip, and to the same extent in each ham and on the back. I covered the exposed surfaces, and kept them constantly covered with the prepared calamine. In four days at farthest the cuticle was every where restored, the pulse became quiet, the appetite returned, and the man recovered more rapidly than usual. There is not a single pit to be observed on those parts where the cuticle was so extensively removed, and even the immediate surrounding pustules, which unavoidably were covered with the powder, have not destroyed the cutis. I will not pretend to say that any very elaborate train of reasoning led to the adoption of this plan, nor will I admit that it was adopted without reflection. I have frequently thought that any successful mode of local treatment would disarm the malady of half its loathsomeness, and as a consequence would control the constitutional disturbance. The immense surface of exposed cutis, the discharge, the exquisite sensibility, all reminded me of the appearance and effects of a scald; and, reasoning by analogy, I tried the same mode of treatment with the good consequences above stated.

H. GEORGE,
Surgeon.

23, Lower Phillimore Place,
Kensington.

PREMATURE LABOUR.

To the Editor of the London Medical Gazette.

SIR,

THE practice of inducing premature labour, in cases where the pelvis, either from malformation or from mere defective capacity, cannot permit the passage of a full-grown foetus, is now pretty generally acknowledged to be at once safe, useful, and humane. Yet as there are still some practitioners whose extreme caution and timidity do not suffer them to take advantage of this valuable improvement in the art of midwifery, the publication of the following case may not be altogether void of utility.—I am, sir,

Your obedient servant,
JOHN M. DIVITT.

Kilworth, Leicestershire,
12th April, 1861.

Mary Marshall, aged 37 years, pregnant of her ninth child, has a large projection of the sacrum, which had rendered her previous labours extremely difficult. Of her eight children only one is now alive, the rest having been either born dead or having died soon after birth, in consequence of the severe pressure which they had sustained during that process. Her own sufferings on each of these occasions had been very great. Of rather a plethoric habit of body, she had been accustomed too, for a considerable period of time after her confinements, to be afflicted with a violent headache; a consequence, no doubt, of the powerful efforts of parturition. It was certain, likewise, that the projection of the sacrum was constantly increasing. In the last labour but one, much more difficulty had been experienced than in any of the preceding ones; and in the very last, she had suffered so much before delivery could be effected that her life was considered in great danger. It was determined, therefore, by Mr. Day, from whom I have had the particulars relating to her former confinements, to bring on premature labour by puncturing the membranes—an operation which he had performed in a similar case a few months before, with complete success. This, in the case of Mrs. Marshall, he did on the morning of the 22d February, at which time she was, as nearly as could be calculated, about 34 weeks advanced in pregnancy. The waters continued to dribble slowly away until the evening of the next day, when labour-pains commenced. On examining the pelvis soon after this period, it seemed questionable whether there existed space enough for a foetus even of thirty-four weeks to pass entire. A few hours, however, removed all doubt; she was delivered of a living child, which still continues healthy and thriving.

An hour after the child was born, the placenta, not coming away by the natural process, was removed by the hand; though not without considerable difficulty, owing to its having contracted morbid adhesions to the fundus of the uterus. Nearly in its centre was a spot of almost bony hardness, somewhat less than the size of a half-crown-piece. Towards its left margin were two similar, but smaller ones. This circumstance proves, I think, that there is in

the constitution of the woman a disposition to secrete more than a natural quantity of osseous matter; and that the projection of the sacrum arises from morbid enlargement, rather than from mal-position of that bone. The same conclusion, indeed, forced itself upon me as soon as I made an examination of the pelvis. The woman got quite well in a few days, without experiencing any thing of the violent headache from which she used to suffer so much after her former labours.

It must be evident to every one, that the most fitting cases for the performance of the operation of which I have been speaking, are those of women who have previously borne children; for in them the soft parts more readily assume that moist and relaxed state which is so essential to the easy passage of the infant. Indeed it is rarely, except in such cases, that the operation is likely to be had recourse to; for it is principally by difficulties experienced in a former labour that we can be convinced of its necessity. It must likewise appear manifest, that the more slowly the waters are evacuated, the better chance there is of the case having a favourable issue.

It concerns the safety both of the mother and the child, that an interference should be delayed till as near the natural term of gestation as the degree of obstruction existing in the pelvis will admit.

CONTRIVANCE FOR DRAINING THE THORAX OF LIQUIDS,

Excluding at the same time the Admission of Air.

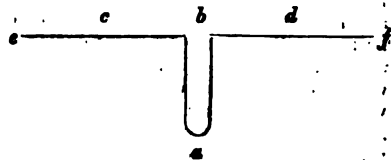
By SAM. A. CARTWRIGHT, M.D.

THE fact, that liquids can be conducted out of the thorax by a contrivance impervious to air, is new in surgery, and may be found important in the treatment of many cases of wounds of the lungs, empyema, and dropsy.

By a letter now before me, from Dr. Thompson, of Louisiana, I am informed that in three cases of hydrothorax he conducted the water out of the cavity of the chest, prevented at the same time the ingress of air, and cured his patients speedily and effectually.

A flexible metallic rod or piece of

wire, about the thickness of a common probe, and eight or ten inches in length, should be bent in the middle, so as to form a duplicature, as here represented;



The double part of the wire, *a b*, is introduced through a small incision made into the chest. The parts of the wire, *c d*, lie close on the integuments of the thorax. Adhesive strips are applied over the wound and wire, to prevent the admission of air. A small part of the extremities of the wire, *e f*, should be left uncovered by the strips. The duplicature of the wire, *a b*, should be of no greater length than barely to reach the cavity of the thorax, without penetrating within that cavity. Any liquid which may become extravasated within the cavity of that side of the chest to which this instrument is applied, will pass along the wire *a b c* and *a b d*, and make its exit drop by drop at the extremities of the wire, *e f*.

The atmospheric air will be entirely prevented from entering the cavity of the thorax by the adhesive strips. Nor will the strips covering the wire prevent the effused fluid from passing along the surface of the wire under the adhesive plaister, and dropping out at its extremities. I state this fact on the authority of Dr. Thompson. The lung, on the side to which the instrument is applied, being unoppressed by water within, or atmospheric pressure from without, continues to contract and expand; during the period a constant aqueous discharge is kept up from the cavity of the thorax. For the wire conducting off the hydropic fluid as fast as it is effused within the bag of the pleura, the oppression to respiration, from the accumulation of water, is thereby prevented. The resilience of the lung being thus preserved, greatly facilitates the cure, by placing the system in a favourable condition to be benefited by medicines.

In the event of both bags of the pleura containing water, pus, or blood, I see no reason why the operation of paracentesis thoracis should not be per-

formed on one side, the fluid evacuated, (and if there be a probability of its re-accumulation,) the instrument under consideration applied, and the wound made air tight by the adhesive plaster; and a similar operation could forthwith be resorted to on the other side. Thus, as fast as the fluid might be poured out within the thoracic cavities, the wires would conduct it out; the free play of the lungs being thereby preserved, the arterialization of the blood would continue to take place, and to render the system more capable of enduring the original affection, on which the preternatural effusion might depend. In cases applicable for the contrivance here suggested to the profession for their consideration, it has been the practice to resort to repeated operations, to leave a *cannula* in the wound, or to abandon them as incurable. Repeatedappings afford only temporary benefit, while the tendency to re-accumulation continues; and the cannula, by admitting the external air within the cavity of the thorax, collapses the lung, and suspends its important function*.

CASE
OF
AXILLARY ANEURISM,

In which the Subclavian Artery was successfully secured in a Ligature.

BY VALENTINE MOTT, M.D.†

WILLIAM HINKS, aged 28, of Smithville, Virginia, came to New York, 24th August, 1830, and became my patient.

The account he gave of his case was, "that about seven weeks ago he received a violent strain while carrying a canoe on hand-bars across the arms, which was followed by an extensive discoloration of the skin of the right arm, extending to the chest, and attended with considerable pain. It, however, yielded to the usual remedies in such cases. Three weeks subsequent to the accident, he observed a swelling about the size of a pigeon's egg under the right arm, which had rapidly increased."

On examination, I found a tumor about the size of a goose-egg, and decidedly an aneurism of the axillary ar-

tery. His general health being good, I directed him to keep quiet, to be bled, and to take some purgative medicines; and fixed on Monday, the 30th, for tying the subclavian artery.

At 11 o'clock, A.M. he was placed upon the table, with the shoulders elevated and inclined to the right side. An oblique incision was made, two inches in length, through the integuments and platysma myoides muscle, and corresponding to a middle line of the triangular interval formed on the inner side by the scalenus muscle, on the outer by the omo-hyoideus, and below by the clavicle. The cervical fascia was next divided to the extent of an inch, and with the forefinger and the handle of a knife, the adipose and cellular tissues were put aside, and the artery readily exposed as it passes from between the scaleni muscles. After denuding the artery a little of the filamentous tissue with a knife rounded at the point and cutting only at the extremity, a ligature was conveyed around it, from below upward, by the *American needle*, and the artery tied a little without the scalenic muscles.

No other ligature was required. The patient lost less than two tea-spoonfuls of blood. The operation lasted about fifteen minutes. The wound was closed by two stitches and adhesive straps; the arm was immediately wrapped in cotton wadding; no diminution of temperature took place.

8, P.M.—Found the patient comfortable; says he has less pain in the arm than before the operation; heat rather more than natural; a faint pulsation in the right radial artery; pulse 88.

31st, morning.—Passed a comfortable night after taking fifteen drops of the Sol. Sulph. Morphine, which was given to allay the pain about the elbow, and which he considered rheumatic, having had more or less of it for some time previous to the operation. This pain was no doubt caused by the pressure of the tumor upon the brachial plexus. Pulse 70; skin natural; says that he feels very comfortable.—Evening. Complains of headache; directed a saline cathartic; pulse 90; skin pleasantly moist; pulsation in the right radial artery occasionally very distinct and regular; temperature of the right arm a little higher than that of the left.

1st Sept.—Pain of the arm obliged him to set up most of the night in an

* American Jour. Med. Sciences, Feb. 1831.

† Slightly abridged from the same.

easy chair: after the operation of the salts, took again fifteen drops of the morphine, and slept quietly about five hours. Feels at present very comfortable; pulse 75; not the least evidence of febrile-disturbance in any of his symptoms.

2d.—Feels much more comfortable than yesterday; slept composedly all night; little or no pain in the arm; pulse 80; removed the wadding from the arm, and enveloped it in flannel, which keeps it very comfortable.

[3d to 14th went on well.]

14th.—On removing the dressings to-day, the ligature came away; all promises well.

27th.—Left the city to-day on his return by water to Virginia.

When I reflect on the disease for which this operation was performed, and upon the situation, importance, and size of the vessel, which was tied for its removal, it appears to me almost incredible that but twenty-seven days should have been required for its cure. That it should have succeeded is particularly grateful to my feelings, inasmuch as it was first successfully performed by an American surgeon (Dr. Post), and is an additional proof of the triumph of surgery over disease and death.

Park-Place, Nov. 25, 1830.

EFFECTS OF BURNING ON THE HUMAN BODY.

Experimental Inquiry into the criterions for distinguishing burns, according as they are inflicted before or after death—with reference to Trials for Murder, where the chief question is, whether the deceased had been burnt to death, or had been murdered before the bodies were burnt.

By DR. CHRISTISON*.

THE two trials with which I shall introduce this communication happened some years ago in Scotland. In each the prisoner was accused of having murdered his wife, and burnt the body afterwards to conceal the murder. The following abstract is drawn up from the notes of Dr. Duncan, and chiefly in his own words.

1. The first was the case of a man

Gilchrist, who was condemned and executed. This case happened at Glasgow.

The prisoner and his wife lived on tolerable good terms, but used to take fits of rambling, and get drunk for days together. At last, on one of these occasions, after their return home in the evening, the people who lived in the floor above them heard a noise like that of two persons struggling, and soon afterwards a rattling or gurgling, and moaning, as of one choking, or bleeding to death. They so strongly suspected all was not right, that they called down to Gilchrist through the floor, that they were afraid he was killing his wife. In no long time they were further alarmed by the smell of fire and the filling of the house with smoke; upon which they went down to Gilchrist's apartment and demanded admission. After some delay he admitted them, and in doing so appeared to them to have come out of an inner room, where he said he had been asleep in bed. On letting them in he stumbled over the body of his wife, who lay in the outer apartment, quite dead, kneeling before a chair, and very much burnt.

In these circumstances, the prisoner was accused of having murdered her, and then burnt the body to conceal the manner of death; while, on the contrary, he alleged he had gone to bed tired, and knew nothing of what had befallen her till he was awaked by his neighbours, and that he presumed her clothes had caught fire while she was intoxicated, and burnt her to death.

"Unfortunately," observes Dr. Duncan in his notes, "there were no data to decide this question. The medical gentlemen who had been appointed to examine the body merely reported that they found the body so much burnt that they could learn nothing from it as to the cause of death. The general evidence was all against the prisoner. He was accordingly condemned, although the precise manner of his wife's death was not proved even presumptively; and the sentence was put in execution; but to the very last he vehemently and solemnly denied that he was guilty."

2. It is singular that within a year Dr. Duncan had an opportunity of applying these views in a similar judicial case, which occurred at Leith.

The general evidence was of the same nature as in the case of Gilchrist,

* Slightly abbreviated from the Edinburgh Medical and Surgical Journal.

but even stronger against the prisoner. He lived on bad terms with his wife. On the evening of her death she returned home at a late hour with a lighted candle, after getting some whisky at a neighbour's. At this time the prisoner was in bed; but some time afterwards there was heard a considerable noise, like that of struggling and of chairs pushed up and down the room; and after this the man was heard in an adjoining bed-room endeavouring to quiet his child, who was crying.

Presently the neighbours were alarmed by a strong smell of fire proceeding from the prisoner's apartments. They therefore knocked at his door for admission; but in vain: all the noise they could make did not bring him to the door. At last a man forced his way in by breaking the window of the outer room. On entering, he found the room full of smoke, and observed something burning red in a corner, over which he instantly threw a pitcher of water, and which proved to be the body of the woman burning on the hearth. Several persons now entered the inner room, where they found the prisoner either asleep or feigning to be so. On being roused and told of his wife's death, he expressed neither surprise nor sorrow, but coolly demanded by what authority his neighbours broke into his house, and threatened to send for a constable to commit them. Under such circumstances, the presumption of his having been accessory to his wife's death was strong.

The dead body was examined under the Sheriff's warrant, and Dr. Duncan was present. "We found," says he, "some parts of the body, especially the belly, burnt to a cinder. It was not there we could expect to find any proof whether the burning had been before or after death: the action of the fire had been too violent. We then examined the parts on which it had acted more moderately, namely, the face and extremities; and here we discovered what we were unanimous in considering to be incontestible proof that the woman had been burnt to death—that she had been set fire to while alive, and had died in consequence of the burning. There was every mark of vital reaction; some spots merely red and inflamed; others scorched to a hard, transparent crust, but surrounded with distinct redness; and a great many blisters filled

with lymph, perfectly different from those produced on the dead body, which are not filled with a fluid, but with air or vapour. In short, we found appearances exactly similar to those of fire on a living body; and therefore we reported, as our unanimous opinion, that the deceased was burnt to death."

As there was no proof that the prisoner had set fire to her, he was not found guilty; but in consequence of the extremely suspicious nature of the general evidence, and especially the circumstance of the man apparently pretending to sleep in defiance of his neighbours' attempts to awake him with loud knocking, the jury returned the intermediate verdict of *not proven*.

"I think," continues Dr. Duncan, "that in the last case, and probably also in the first, the woman was burnt to death. One circumstance worthy of particular notice occurred in both; I allude to the violent and destructive action of fire, compared with the small quantity of combustible matter consumed. In both cases these unfortunate women were burnt to death, and their bodies deeply scorched by their clothes alone; for in neither was there any trace of burning in the house or furniture. I examined the last case on the spot. The woman was found on the hearth with part of her clothes unburnt, and a chair, from which she had fallen, quite entire. She was dead when the neighbours entered, and in the dark the body was discovered by a red light issuing from it."

OBSERVATIONS. — This interesting narrative gives rise to various reflections. In the first place, I think it is extremely difficult to avoid the conclusion that the body was in that singular state in which it is apt to undergo spontaneous combustion, or I should rather say, to be preternaturally combustible. It is difficult to explain otherwise the great extent of the burn which was inflicted. Secondly, although the subsequent experiments will shew that Dr. Duncan was perfectly right in his opinion, and the grounds on which he rested it, an important question arises, and was indeed very ingeniously started by the Crown council at the trial, in reference to the opinion that the woman was burnt to death—whether the redness and blisters remarked on the edge of the scorched parts might not have arisen immediately after struggling, or some

other cause of death than burning, during the period when a lingering vitality remains in the body, and when undoubtedly certain phenomena of a vital nature are frequently observed. The medical witnesses at the trial admitted that the question could not be answered decisively, on account of the want of the necessary facts, but that they did not consider it at all probable that blisters, at least, could be produced even immediately after death. It will be seen presently that they were right in regard to both blisters and redness. Thirdly, as to the prisoner not being awakened by the noise of the neighbours, which even Dr. Duncan was disposed to consider suspicious, I have to observe, that, from what has come under my own observation, this circumstance cannot be considered evidence against the man. Those who have not had their attention called accidentally to the matter, will scarcely believe how profoundly some persons sleep, more especially working people after their day's labour is over. I have met with an instance where the loudest noise I could make at a door and window close to the bed where the sleeper lay did not rouse him; and a boy of my acquaintance, after a long excursion one day, not only slept out all the noise his family could make at his bed-room door, which he had locked inside, but literally continued to sleep, till his father, in a state of alarm, cut out a panel of the door with an axe, and entering the room shook him by the shoulders.

In an inquiry into the criterions by which a burn inflicted during life may be distinguished from one produced after death, the following considerations must be kept in view. 1. What are the phenomena of vital reaction which appear immediately after the infliction of a burn during life, and remain after death? 2. Do these phenomena appear in every instance of severe burning, even when the person survives but a few minutes, or a single minute? 3. Can they be produced or imitated by any of the effects of burning produced immediately after life is extinct? Such are the points I propose to settle in the succeeding investigation.

1 and 2. Of the effects which follow the application of heat to the living body, the most immediate is a blush of redness to a considerable extent around the burnt part—removeable by gentle

pressure—and disappearing in no long time—and not permanent after death. Next to this in order, and occurring indeed most generally at the very same time, is a narrow line of deep redness, separated from the burnt part by a stripe of dead whiteness—bounded towards the white stripe by an abrupt line of demarcation—passing at its outer edge, by insensible degrees, into the diffuse blush already described, but not capable of being removed, like it, by moderate pressure. This line of redness may be seen very distinctly after the application of the actual cautery, the immediate effects of which represent exactly what may be looked for in a case of speedy death by burning. The redness is obviously caused either by extravasation or very minute capillary injection of the true skin. In every instance in which I have watched the effects of the actual cautery, as well as in the cases which have been observed at my request by others, it appeared in a very few seconds, sometimes in five, generally within fifteen, and once only so late as thirty seconds. I mean, that in this short space of time, the inner edge of the redness surrounding the cauterized part was deep crimson, and incapable of being removed by pressure. I have further examined carefully this appearance in the bodies of persons burnt a few hours before death, and never failed to observe it, forming a line on the entire skin near the burn, from a quarter to half an inch in breadth, and about half an inch from the burn. The next appearance in point of order is blistering. I have not been able to determine the usual period at which blisters are formed. But from the observations I have made, it is obviously an uncertain consequence of a burn, if life be extinguished a few minutes afterwards. When the burning body is a seething fluid, blisters generally appear in a very few minutes; yet sometimes, in very extensive burns of this kind, especially in young children, there is no vesication at all even in many hours. When the burning cause is an incandescent body, vesication is by no means so invariable a consequence as might be supposed. For example, it is seldom witnessed at all round the edge of a burn produced by the actual cautery, probably on account of the circumscribed manner of applying the heat. At the same time, it is certainly often

would have given at least equal satisfaction, and probably have been attended with happier effects. An hour's rest, for instance, sedatives and soothing applications, would sooner have subdued the convulsed members, and restored the whole body to a state of convalescence. Had this been followed by a gentle course of *alteratives*, and injunctions to avoid *ardent spirits*, there is little doubt but that the cure would have been speedy and permanent, and would have prevented the necessity, indeed have left no excuse, for any recourse to "further advice."

A CASE OF POISONING,

Treated with Emetics per Anum.

By S. C. ROZ, M.D. of New York*.

IN November last, I was called to a stout, vigorous man, of middle age, and intemperate habits, who had taken about three-quarters of an hour previously two and a half ounces of laudanum, for the purpose of destroying himself. The narcotic effects of the drug had already commenced. He was, however, easily aroused from his stupor, but, persisting in his determination of self-destruction, he obstinately refused to take any thing for his relief: I immediately introduced the œsophagus tube of a stomach-pump into the rectum, and passed it gently on till I had introduced it up the intestinal canal to the extent of twenty-three inches. In doing this, whenever I met with the least resistance to its passage, I desisted, and pumped into the intestine a small quantity of fluid, which dilated it, and enabled me to pass on the tube some distance further without difficulty. In this way a second and a third obstruction was overcome, and the tube passed up to the desired extent, when I slowly pumped into the colon half a gallon of water, holding in solution fifteen grains of the tartarized antimony. This was no sooner accomplished than the patient complained of nausea, and an inclination to evacuate his bowels, which was quickly followed by full vomiting, repeated several times successively; but the disposition for alvine dejections passed off without effect. I now re-introduced the tube as before,

and pumped into the intestine a quart of water, containing ten grains of the tartarized antimony, and in order to ensure the evacuation of a part of the antimonial solution per anum, lest the retention of so large a quantity might lead to ill consequences, I withdrew the tube to within three inches, and forced into the intestine a large common saline enema. This was, in a few minutes, followed by simultaneous and copious evacuations, both from the stomach and intestines, which did not cease until the primæ viæ seemed to be thoroughly drenched and emptied of their contents. Shortly after I left the patient to his repose, entirely relieved from the effects of his rashness, and found him the next morning suffering merely from languor and debility, consequent upon the active measures of the preceding evening.

In cases of poisoning, the employment of the stomach-pump to extract directly from the stomach the offending material, is undoubtedly an invaluable resource, which the judicious physician will not lightly lay aside for less direct means; but cases often occur where, as in the present instance, it is either impossible, or extremely difficult to introduce the tube into the stomach, and where the introduction of emetic medicines per anum, as high up the intestinal canal as possible, may be resorted to, as in this case, with the best effects.

In some cases of obstinate constipation, and of colic, I have used the same means for the purpose of throwing up purgative medicines, and in every instance have succeeded in affording the patient speedy and entire relief.

New York, Jan. 5th, 1831.

DR. BARRY'S THEORY OF THE VENOUS CIRCULATION.

A CORRESPONDENT of the Medical and Surgical Review lately called the Editor's attention to Huxham's work "de Aëre," &c. vol. i. pages 7th and 8th of the Prolegomena, where (he observes) something is to be found respecting the influence of atmospherical pressure on the circulation, tending to show that Dr. Barry's discoveries, on this subject, are not altogether so original as many indulgent critics, notwithstanding their profound erudition, have shewn themselves willing to allow. Perhaps on no

* American Jour. Med. Scien. Feb. 1831.

occasion was it ever more à propos to reiterate the saying of Solomon, that "there is nothing new under the sun."

On referring to Huxham's work, (continues the learned Editor,) we found, sure enough, Dr. Barry's doctrine laid down in language the most unequivocal, as the following passage will shew:—

"Sanguinis ideo momentum adjuvat assidua atmospheræ pressura, more velut antagoniste agens contra vim cordis insitam et validè constringentem, quod plus, minusve, omni sphincteri musculo proprium est. Cum primum enim, ope inspirationis, explicatus pulmo locum dat expellendo à corde sanguini; facto nempe in ductibus pulmonum sanguineis momentaneo quasi vacuo, continuo in cor dextrum impellet sanguinis quantum facile capit pondus atmospheræ, totum corporis habitum comprimens semper. Eodem porro ipso momento irruens, undique premens, et elasticus aer haud exiguum addit impetum rapidissimis, per pulmonem currentibus, sanguinis rivulis, ejusque momentum tantum adauget, ut vel vim cordis sinistri subigere possit: longè enim longeque velocius currit sanguis per pulmones quam per aortæ ramulos."

We shewed the passage to Dr. Barry, who expressed equal surprise and pleasure at the coincidence—the perfect and complete identity, in fact, of doctrine entertained by Huxham, from reasoning, but proved by Dr. Barry in numerous experiments. This last difference is so great, that we have no hesitation in giving Dr. Barry all the credit of originality—since he declares, and we fully believe him, that he never saw the passage in Huxham till we shewed it him.

ANALYSES & NOTICES OF BOOKS.

"L'Auteur se tue à allonger ce que le lecteur se tue à abréger."—D'ALEMBERT.

Inquiries concerning the Intellectual Powers, and the Investigation of Truth. By JOHN ABERCROMBIE, M.D. Fellow of the Royal College of Physicians of Edinburgh, &c. and First Physician to His Majesty in Scotland. 8vo. pp. 436.

[Continued from page 87.]

DREAMING and Insanity, Dr. Abercrombie considers, are nearly allied. Both of them are conditions connected with

the suspension of reason; and a remarkable analogy exists between the mental phenomena in both. 1. The impressions which arise in the mind are believed to be real and present existences, and this belief is not corrected by comparing the conception with the actual state of things in the external world. 2. The chain of ideas or images which arise, follow one another according to certain associations, over which the individual has no control; he cannot, as in a *healthy* (unaffected?) state, vary the series, or stop it at his will.

Our author's views on this interesting subject are worthy of being stated more at length: we shall, therefore, extract a few passages by way of illustration.

"Reason we have considered to be that exercise of mind by which we compare facts with each other, and mental impressions with external things. By means of it we are enabled to judge of the relations of facts, and of the agreement between our impressions and the actual state of things in the external world. We have seen also that peculiar power, which is possessed by the mind in a healthy state,—of arresting or changing the train of its thoughts at pleasure—of fixing the attention upon one, or transferring it to another,—of changing the train into something which is analogous to it, or of dismissing it altogether. This power is, to a greater or less degree, lost in insanity; and the result is one of two conditions,—either the mind is entirely under the influence of a single impression, without the power of varying or dismissing it, and comparing it with other impressions; or it is left at the mercy of a chain of impressions which have been set in motion, and which succeed one another according to some principle of connexion, over which the individual has no control. In both cases, the mental impression is believed to have a real and present existence in the external world; and this false belief is not corrected by the actual state of things as they present themselves to the senses, or by any facts or considerations which can be communicated by other sentient beings. Of the cause of this remarkable deviation from the healthy state of the mental functions, we know nothing. We may trace its connexion with concomitant circumstances in the bodily functions, and we may investigate certain effects which result from it; but

the nature of the change, and the manner in which it is produced, are among those points in the arrangements of the Almighty Creator which entirely elude our researches."

Every one knows the famous distinction made by Locke between idiots and madmen; madmen, in the opinion of that great philosopher, being persons who from false premises argue and reason rightly enough. But Dr. Abercrombie thinks it is by no means necessary that the premises should be unsound in order to constitute the disease; for a madman may entertain sound premises, though he distort them in the results which he deduces. This our author exemplifies by the well-known story of the clergyman in Scotland, who, upon being brought before a jury to be *cognosced*, was, among other acts of extravagance, charged with having insanely burnt his library.

"When he was asked by the jury what account he could give of this part of his conduct, he replied in the following terms:—'In the early part of my life I had imbibed a liking for a most unprofitable study, namely, controversial divinity. On reviewing my library, I found a great part of it to consist of books of this description, and I was so anxious that my family should not be led to follow the same pursuit, that I determined to burn the whole.' He gave answers equally plausible to questions which were put to him, respecting other parts of his conduct; and the result was, that the jury found no sufficient ground for cognoscing him; but, in the course of a fortnight from that time, he was in a state of decided mania. Now here the premises were sound and consistent, namely, his opinion of the unprofitable nature of the study of controversial divinity, and his anxiety that his family should not prosecute it. His insanity consisted in the rapid and partial view which he took of the means of accomplishing his purpose,—burning his whole library. Had he sold his library, or that part of it which consisted of controversial divinity, the measure would have been in correct relation to the object which he had in view; and if we suppose that, in going over his library, he had met with some books of an immoral tendency,—to have burnt these, to prevent them from falling into the hands of any individual, would have been the act both of a wise

and a virtuous man. But to burn his whole library, to prevent his family from studying controversial divinity, was the suggestion of insanity; distorting entirely the true relation of things, and carrying an impression, in itself correct, into consequences which it in no degree warranted."

This we give as a fair specimen of some of the nice points to be met with almost every where in Dr. Abercrombie's book, and we should willingly extract more of them did our limits allow. The whole section on insanity, somnambulism, and spectral illusions, is ably written, and abounds with the results of rational observation and experience. But we must come, without further digression—however reluctantly we may leave more general subjects—to that part of the volume which is more strictly professional.

Part IV. is specially devoted to medical science, and of this we shall endeavour to give a brief but comprehensive analysis. The first thing that occupies Dr. A.'s attention under this head, is the uncertainty of medicine. D'Alembert, it is known, has quoted on the subject a certain apologue, which he attributed to a friend of his, a physician. "Nature," said this humourist, "is fighting with the disease: a blind man, armed with a club, comes to settle the difference. He first tries to make peace; but when he cannot accomplish this, he lifts his club and strikes at random: if he strike the disease, he kills the disease; if he strike nature, he kills nature."

There is great exaggeration, to be sure, in this manner of stating the case—but of the fact of the lamentable and inevitable uncertainty of medicine, there can be no doubt. It is deeply felt by the practical physician in the daily exercise of his art; and it therefore becomes an inquiry of the utmost importance, what the *sources* of this uncertainty are—where that point is, in our researches, at which its influence begins—and, when we arrive at this point, what the means are by which it is diminished?

"The certainty of a science, as was formerly stated, depends upon two circumstances; namely, the facility with which we ascertain the true relations and tendencies of things, or trace effects to their true causes, and causes to their true effects,—and the confidence with

which we rely on the actions; dependant on these relations, continuing to occur in all cases with perfect uniformity. This confidence we easily attain in those sciences in which we have to deal only with inanimate matter. We do so by means of experiments, in which, by placing the substances in various circumstances towards each other, we come to ascertain their true tendencies with perfect certainty, and to separate them from the influence of all associations which are only casual and incidental. Having thus discovered their tendencies or actions, we rely with confidence on these continuing to be uniform; and, should we in any instance be disappointed in the action which we wish to produce, we are able to trace the cause by which the expected result has been prevented, and to obviate the effect of its interference.

"In both these respects, we find in medicine a degree of uncertainty, which marks a striking distinction between it and the purely physical sciences."

But, besides these two, there is another source of uncertainty in medicine; and that is, the difficulty which we find in applying to new cases the knowledge which we have acquired from observation. We must act on analogy, not on experience: and this it is which so peculiarly exposes our profession, as well to the shafts of the satirist as the unavailing complaints of the learned.

It is evident, upon all these different accounts, that every process in medicine must be conducted with the utmost caution. The objects, according to our author, which should chiefly be kept in view, are these four:—

"1. To acquire an extensive collection of well-authenticated facts.

"2. To arrange, classify, combine, or separate these facts.

"3. To trace among the facts, sequences or relations, particularly the relation of cause and effect.

"4. From an extensive collection of facts, to deduce general facts or general principles."

And to each he devotes a distinct section. We cannot follow him through all, but we shall extract a passage or two from his remarks on the second head. Speaking of the effects produced on medical science by a zeal for nosology, which he suspects has been unfavourable to the progress of medicine, Dr. A. observes that the nosologist but too frequently proceeds upon the prin-

ciple, "that the characters of disease are, to a certain extent, fixed and determined, like the botanical characters of a plant, or the chemical properties of a mineral. Hence, it too frequently happens, that individual cases are compared with the system, instead of the system being corrected by farther observation.

In this manner, young practitioners are in danger of attempting to ascertain a disease by its agreement with the nosological characters, and are drawn away from that minute attention to the phenomena, which alone can lead to correct diagnosis. Thus a medical man might argue with regard to a case indicating disease in the brain, that there can be no effusion, because the pulse has never been below its natural standard, or because the pupils are not dilated; or, with regard to an affection of the abdomen, that there is no inflammation, because the pulse is strong and the bowels open. Nosology, it is true, teaches him, that, in hydrocephalus, at a certain period, the pulse becomes slow, and the pupils dilated; and that, in intestinal inflammation, the pulse is small and the bowels obstructed; but no great extent of observation is required to show, that the symptoms now mentioned are not uniform or essential to these diseases. Such a confidence in system must be equally injurious to the improvement of the individual, and to the progress of medical science; and the examples now given will be sufficient to illustrate the importance of the rule which these observations are intended to convey,—separating facts which are occasional or incidental, from those which are uniform and essential.

"On this subject I shall only add the following anecdote, which I lately received from a medical man of very high intelligence. At an early period of his career as a naval surgeon, he was left in charge of a ship on the West India station, when several sailors presented themselves with an affection of the legs, the nature of which was entirely new to him. Having expressed his difficulty to one of the officers, not medical, he was promptly told that the disease was scurvy, and that, if he examined the gums of his patients, he would find sufficient evidence. To this he replied, that the thing was impossible, because, in the nosology of Dr. Cullen, it was expressly specified, that scurvy occurs 'in regione frigida.' He was, however, soon

convinced that the disease was really scurvy, though it occurred in the West Indies; and, as he added, received a most important lesson, to observe for himself, instead of trusting to systems."

For one quotation more we must endeavour to find room, and then conclude. In it our author lays down those rules which he recommends to all who would contribute to the improvement of medical science; and we think them so good that we should willingly strain a point to lay them before our readers.

"I. We should endeavour to have all our terms fully and distinctly defined. If we speak, for example, of a person being bilious, or labouring under biliary derangement, or derangement of the chylipoietic viscera, let it be explained what particular condition of the biliary or digestive organs we mean to express by these terms; or, if this cannot be done, let it at least be clearly understood, what particular symptoms we include under them. The same observation applies to various other terms of an equally indefinite character, which have been formerly mentioned. If they were defined in this manner, they would be merely names, and no harm could result from the use of them; but as they are frequently employed, they seem to have no explicit signification.

"II. In making a statement of facts, or examining a statement made by another person, we should be satisfied that the facts are authentic,—that they are fully and fairly stated,—and that no important facts are left out of view, disguised, or modified. It is also necessary that no facts, not really connected with the subject, are taken into the statement. I formerly alluded to examples of this last error,—appearances being considered as indicating diseases of internal organs, which are incidental or trivial, perhaps taking place after death, or under circumstances not connected with diseased action.

"III. When we find two events placed in a state of contiguity to each other, we should use the utmost caution in considering them as connected in the manner of cause and effect. Nothing warrants us in assuming this relation, but such an extent of observation as shows the connexion to be constant and uniform; and we should keep in view the various sources of fallacy, formerly

referred to, which encompass the whole subject of medical causation.

"IV. In deducing general conclusions or general doctrines, we must beware, on the one hand, of assuming imaginary principles which cannot be proved really to exist; and, on the other, of deducing principles or doctrines from a limited number of facts. We must remember that such deductions are of no value except they are invariably true in regard to all the cases to which they are meant to refer.

"V. In examining a statement made by any writer, there is cause for exercising similar caution. The credibility of a narrator of medical statements does not rest upon his veracity only, or the total absence of any intention to deceive. With perfect sincerity and conviction of the truth of what he delivers, he may present fallacious statements. This may happen from a partial narration of facts,—from unsound causation,—and from delivering as equivalent to a fact, what is really a general statement. In regard to these, we require to be satisfied, not only of his veracity, but of his habits as an observer, and the extent of the observations on which his statement is founded. In all cases of this kind, therefore, we ought to exercise such a mental process as the following:—

"1. Are the terms which the author employs fully and distinctly defined; and are they employed in the usual and recognised meaning?

"2. Are the facts authentic; are they fully and fairly stated; do they all relate to the subject; have we reason to suspect that any important facts have been omitted, disguised, or modified,—or that facts have been collected on one side only of a question; does the statement include any points which, though called facts, are merely assumptions requiring to be proved?

"3. What events does the author consider as connected in the manner of cause and effect;—have we reason to believe that this relation has been assumed upon an extent of observation which proved it to be constant and uniform:—What does he propose as general principles or doctrines; are these facts; and are they true in regard to all the cases to which he applies them?

"4. What are the new conclusions which he proposes to deduce from his whole view of the subject; and are these

legitimate deductions from such of his premises as we admit to be authentic?

"The rules thus shortly proposed, I submit with diffidence, as those which ought to guide us in all our inquiries. Without constant attention to them, numerous facts may pass before us from which we may derive no real knowledge; and many ingenious and plausible doctrines may be presented, which tend only to lead us into error. In the same manner, the benefit which a physician derives from his own opportunities of observation, in common language called his experience, is not in proportion to the period of time over which it has extended, or the number of facts which have passed under his view. It must depend on the attention with which he has observed these facts, and traced their relations to each other,—on the anxiety with which he has separated incidental relations from those which are uniform,—and the caution with which he has ventured on assuming the relation of cause and effect, or has advanced to general principles. It must depend, further, on the jealousy and suspicion with which he has received even his own conclusions, and the care with which he has corrected them from time to time by farther observations. Finally, it must depend on the judgment with which he applies the knowledge thus acquired, to the investigation and treatment of new cases,—by tracing promptly the points of affinity between the case under his view, and those cases on which his knowledge was founded;—by discovering real points of resemblance where there is an apparent difference, and real points of difference where there is an apparent resemblance. The farther a physician advances in this course of rigid inquiry, he becomes more sensible of the difficulties with which his science is encumbered, more suspicious of all general conclusions, and more anxious to bring them to the test of minute and extensive observation;—in particular he learns to exercise more and more caution in considering any one event in medicine as the cause of another. In real acquisition, consequently, his progress is slow; for much of his improvement consists in detecting the fallacy of systems which he once considered as established, and the instability of principles in which he once confided as infallible. But these discoveries prepare the way for his ac-

tual progress, and the conclusions at which he does arrive then fall upon his mind with all the authority of truth."

We now take our leave of Dr. Abercrombie, with great respect. We have already said that his book is essentially practical. It is, moreover, concise as can be expected, but far from being obscure from its brevity. The interest is ever kept alive by a number of excellent illustrative anecdotes, which cannot fail to render it acceptable even to ordinary readers. But what constitutes, we think, its chief merit, is the manner in which the author, throughout the volume, has applied the principles of metaphysical philosophy to medical science, and shewn the nature of the connexion between them; this is that special feature of the work by which we believe it stands distinguished from every other publication on the subject.

MEDICAL GAZETTE.

Saturday, April 23, 1831.

"Licet omnibus, licet etiam mihi, dignitatem *Artis Medicæ* tueri; potestas modo venendi in publicum est, dicendi periculum non recuso."—CICERO.

DR. RAMADGE AND ST. JOHN LONG.

ABOUT ten days ago our attention was directed to a letter in the Sunday Times, bearing the signature of Dr. Ramadge, and addressed to Mr. St. John Long. We have been induced, however, to delay noticing it until now because we conceived it to be impossible that such a paper should really have proceeded from the pen of a man holding the station in society which a physician is always presumed to occupy, and having received the education which is necessary for obtaining a degree in medicine or being admitted a Fellow of the College of Physicians. When, in addition to this, we called to mind that a medical journal* had shewn to other periodicals the detestable example of forging letters from medical men, where

* See *Lancet*, *passim*.

it became an object to ridicule or traduce them, our inference certainly was, that the letter in question was spurious, and that the next number of the paper in which it appeared would contain an indignant denial of its authenticity from the physician whose name had been attached to it. But the time has gone by without any such denunciation of its falsehood; and we are therefore, however reluctantly, compelled to regard Dr. Ramadge as the author of a letter which he has suffered without contradiction to be publicly ascribed to him—a letter which we hesitate not to designate as a mass of ignorance, vulgarity, puffing, and misrepresentation, such as St. John Long himself, if he has ever equalled, certainly never has surpassed.

The document in question consists of an elaborate vindication of Long's practice in general, and of his treatment of Miss Cashin and Mrs. Lloyd in particular; together with many injurious and unprofessional observations on the characters of others, and sundry intimations of the writer's own extraordinary extent of practice, and his consequent superiority over his competitors. The paper is greatly too long and much too worthless for insertion, but we shall give one or two quotations, to justify the severity of the censure we have bestowed upon it.

Our readers may probably remember that it was clearly proved by dissection that the unfortunate Miss Cashin had not laboured under any disease of the lungs; in impudent disregard of which Dr. Ramadge sends forth anew to the public the very erroneous assertion that she laboured under consumption, and that the treatment adopted was highly proper.

"The post-mortem examination of Miss Cashin satisfactorily proves to me the correctness of your judgment as to the existence of pulmonary disease, and which, in my opinion, fully justified you

in the steps you took, in the hope of suspending or removing an affection of such a fatal tendency."

In another place he states, with equal misrepresentation, that a cicatrix was found "in the summit of each lung;" forgetting, first, that the contrary was proved in evidence; and, secondly, that the disease could not have been both actually present and already cured: so that if this statement were correct, it would prove that the disease had already been removed, and consequently that treatment of the most "fatal tendency" was adopted "in the hope of suspending or removing an affection" which no longer existed. We cannot, however, condescend to argue on such a subject, or with such an opponent. Most persons have probably supposed that the sore on the back, produced by certain applications made to the part, was the cause of the young lady's death; but this, according to Dr. Ramadge, is quite a mistake; for, says he,

"When we find, on perusing the evidence against you, the great quantity of plums and purple grapes eaten by the lady alluded to, and presuming that she had a great and natural solicitude for her sister's sufferings, our surprise lessens whilst there existed such causes for local and general irritation."

Or if the above be not perfectly convincing to the reader, at all events no doubt will remain after he shall have perused the following clear and satisfactory piece of pathology, and most perspicuous specimen of composition.

"Whilst the stomachic irritability kindled up constitutional fever, a sore of the most harmless nature might become highly inflamed, and even be the cause, *through* sympathy, *for* those violent retchings that took place afterwards, and might impair the vitality of that organ, *through* a diminution of which deaths occasionally occur, examples of which are at times seen in cases of spasm, occurring *through* gout seizing the stomach, a violent blow upon that organ, &c."

But Dr. Ramadge does not content

himself with raising Mr. St. John Long, by the vigour of his arm, above the machinations of his oppressors; he also deals his blows against those whom he denominates his "illiberal and invidious traducers," from among many, at whom he points indirectly, he especially selects Mr. Brodie by name as the object of exposure—alike for his professional misdemeanors and moral delinquency.

"It strikes me that the surgeon whom I am now speaking of, ought not to have been the first to raise his voice against you, but, on the contrary, have had some charitable feeling; from the conviction, that while he sought for a mote in your eye, he might possibly find a beam in his own. A few years ago some of my pupils informed me, that high operations for the stone were performed at St. George's Hospital by Mr. Brodie; the events were most unfortunate; and, I believe, commented upon pretty freely, by more than one anatomical lecturer in this metropolis."

Had Mr. Brodie "been the first to raise his voice" against Mr. Long, it would have been highly creditable to him to have denounced such a character; but it is a merit to which, we fear, he has little claim, as he never took any part except that of giving his evidence when compelled to do so in a court of justice. With regard to the parallelism between Mr. Brodie and Mr. Long, as having been equally guilty of manslaughter: according to Dr. Ramadge, it was not displayed in any particular case, nor in one solitary experiment, the result of which had taught him to avoid the danger, but the murderous plan was systematically pursued; there were "*operations*," and "*the events*," which were "*most unfortunate*," were commented upon "*pretty freely*." There, Mr. Brodie, what have you to say for yourself in answer to such a charge, and coming from such a quarter?—Lest, however, Mr. Brodie should be too much overwhelmed to answer, or in case our

readers should have forgotten the accusation before another number of the Gazette sees the light, we may mention, as a slight extenuation of the atrocity of his guilt, *that Mr. Brodie never performed the high operation for the stone in his life; on the contrary, we know that he has been in the habit of cautioning his pupils against it!!!* And now, most "conscientious" and "impartial" Dr. Ramadge, does it appear to you that any other application may be made of your scriptural illustration, about the mote and the beam?

It is rather singular that Dr. Ramadge, who remarks to his correspondent, "I know very little of you or of your practice," should nevertheless be enabled to describe Mr. Long's sayings, and doings, and doctrines, with a degree of minuteness which, supposing his description to be correct, nothing but an intimate acquaintance and anxious investigation could have enabled him to have displayed. Nor is the motive of his Quixotic defence more apparent, unless the opportunity of puffing himself be looked upon as affording some clue to the proceeding. The public, however, will not fail to perceive that, next to *Doctor Long*, Dr. Ramadge must decidedly be the most proper person to consult in difficult cases. And we may just remark, *en passant*, that standing, which it does, as a complete and independent sentence, the quotation which we subjoin has some claims to be looked upon as a literary curiosity.

"To me, who have had for more than eleven years past *unequalled* opportunities of treating, and where death has taken place, of investigating numerous affections of the chest, I do not exaggerate when I say, that I have opened *more than a thousand* bodies of consumptive persons alone."

If the learned Doctor has opened the bodies of more than a thousand persons who have died of consumption, may we crave permission to ask in what manner

"his unequalled opportunities" have contributed to the benefit of his patients?

But, again, some idea of the extent to which the Doctor's time is occupied, may be gathered from a piece of information with which he favours us—namely, that he has only been able to devote to the composition of his most creditable letter "moments hastily snatched after much fatigue caused by professional avocations." After which he adds, "It is to this cause I must apologise for such imperfections as may appear in the foregoing observations!" As we never before heard of any one apologising to a *cause*, we really cannot say how the Doctor's excuses may be received in that quarter; but this we know, that Dr. Ramadge will find it difficult, by any explanation, to wipe away the indignation which his conduct must excite in the mind of every honourable member of the profession, unless contempt should be too predominant a sentiment to admit any other feeling.

Medical men in the different branches of the profession to which they belong, look to the chartered bodies which preside over them to maintain the respectability, at least, if not the dignity, of their "order." On this principle, as public journalists watching over our common welfare—as members of a profession of whose honour we are jealous—we have called on the College of Surgeons to expel from among them one, whose presence must ever be a stain upon their character;—in the same capacity, and with equal earnestness, we now call upon the College of Physicians, by the duty which they owe to the public, by the duty which they owe to their profession, and by the duty which they owe to themselves, not to suffer one of their members to escape without prompt degradation, who, to use his own words, has "openly, fear-

lessly, and *after deep deliberation*," published a letter in open defence of a notorious quack and convicted felon—in unprofessional advertisement of himself—in slanderous imputation against others—and in sneering derogation of the body to which he himself more particularly belongs. Now this letter, reflecting such disgrace on all who practise medicine, has appeared in the public papers, and is signed "Francis H. Ramadge, M.D. Oxon. *Fellow of the Royal College of Physicians*." We are aware that Dr. Ramadge has already been censured by the College, for a letter which he inserted in the *Lancet*; but that is not enough—a public act like the present ought to be met by an equally public vindication of professional honour; and the fact of the author of such a letter being *degraded* by his own College, and consequently disowned as their compeer by all the physicians of England, ought to be made as generally known as the cause of his offending.

The public ought to be acquainted with the fact—nay, it ought to be forcibly impressed upon them—that such outrages are only committed by those who have "lost cast;" while the profession ought to have the satisfaction of feeling that such a dereliction of all that is becoming in the medical character, is "openly and fearlessly" visited with the punishment it deserves, and that the disgrace, which otherwise all must share, is concentrated on the head of the offender.

COLLEGIUM WAKLEYANUM MEDICO-CHIRURGICO-APOTHECARIUM. We have to apologize to our readers for not having sooner alluded to the rapid progress which this "glorious institution" has made—a progress no less gratifying to the profession at large than flattering to the distinguished founder, to whose high character and personal influence it is no doubt mainly to be at-

tributed. The delay of a week, however, has enabled us to add several important particulars to those we formerly communicated, and they are of a nature to shew the high standing which the COLLEGIUM WAKLEYANUM must instantly take among the scientific establishments of this country; if, indeed, all other medical corporations do not merge in the all-absorbing superiority of its claims to public confidence.

Candidates for the diploma are not to be required to produce testimonials of any kind*. Here at once is a death-blow to that "detestable oligarchy whose bread depends upon the duration of error and charlatanry, tyranny, oppression, and abuse;" the hydra of Lincoln's-Inn-Fields has breathed its last; no more shall we hear of its "detestable regulations;" no more will genius be subject either to the incantations of the stupid and filthy hags of Rhubarb-Hall, or the diabolical machinations of the bats, those execrable blood-suckers of the profession. The pockets of these gentry will no longer be loaded with nefarious gains wrung from the hard-earned pittance of their betters: no longer will the "certificate system" form the bane of rising talent, or stand between the public and the immediate benefits they must receive from intuitive skill and the experience that comes by inspiration.

The election of officers to the great hospitals is not to rest exclusively with the Fellows of the new College, but their choice is to be subject to the approval of the First Lord of the Treasury for the time being*; and in this striking instance of moderation is to be found the best refutation of the calumnious insinuations which some have thrown out against the purity and disinterestedness of those by whom the laws have been framed. It is impossible for us to notice all the points indicative of wisdom in the construction of the plan;

but we cannot pass by, without the tribute of our admiration, the intended establishment of a *compulsory* charitable contribution levied on the whole body, to render assistance to such of the Fellows as may be in reduced circumstances*—a provision which is generally looked upon as shewing more than any other the prudence and foresight of those with whom it originated. Those, however, who might feel alarmed at the prospect which this regulation at first sight may seem to present, will be instantly re-assured on learning farther that no claims are to be entertained "unless supported by testimonials of high moral character," a restriction which those best acquainted with the parties were aware the public would receive as a satisfactory guarantee that the expenditure in this department of the new College would never attain any very formidable extent.

We learn that candidates for the diploma flow in apace: indeed it is said, that from ten to twelve *confrères* have already been enrolled; and as soon as a second floor can be procured in a convenient situation, a "General Convocation" is to be held. Dreadful, when this occurs, will be the consternation of those "who acquire a subsistence through the deceptive influence of false and worthless academic honours:" despicable as they are, they have yet instinct enough to perceive that they cannot for a moment stand against the imposing contrast which will be presented to them by those clothed with the dignity of the Wakleyan Doctorate; or, to borrow the correct and appropriate language of our esteemed coadjutor in the great cause, they know that "the plumage of the peacock cannot conceal or disguise the croak of the raven:"—assuredly not; and we can tell them more, that under whatever form they may attempt to hide their disgrace—

* See printed prospectus of the new College.

* Ibid.

whether as "bat," or "owl," or "raven," or "sparrow," or "peacock," or "vampire," or any thing else in the shape of bird or beast which they have been so often proved by our contemporary to assume, we shall strip them of their borrowed trappings, and expose them to the derision of the world—as naked, and far more to be pitied than the *bipes implume*—the unfortunate cock, which, of old stood a shivering object of ridicule in the Academy at Athens.

We are informed that "of the success of this great national undertaking, a doubt cannot be entertained by any rational medical practitioner," and in this opinion we most cordially concur; indeed, we never have had a doubt upon the subject, nor do we conceive it possible that an establishment, founded on "adamantine pillars" (the material proposed by the learned President in his opening speech) should fail to be enduring.

We shall make a point of communicating, as soon after the event as possible, the name of every one on whom the diploma of the new College is conferred; and in order that the public may be in no danger of confounding the drones with the workers—the chaff with the grain—or the friends of a free medical press with the dotards who are sticklers about facts, we propose publishing, and, in humble imitation of a distinguished contemporary, distributing gratuitously (to every one who purchases our Journal) a chart, beautifully printed in red and black, containing the names of those belonging to the *rot-ocracy* of the profession, and those composing the genuine *Doctors* of the COLLEGIUM WAKLEYANUM MEDICO-CHIRURGICO-APOTHECARIUM.

ANATOMY.

A CORRESPONDENT has directed our attention to the following paragraph in a Dublin newspaper: we insert it, as it

stands, with much pleasure—though the document it embodies is already well known to our readers, and indeed obtained its first publicity through the pages of this journal.

"We are requested to state that the following declaration, which has been signed by 300 respectable individuals, is placed in the Anatomical Museum of Trinity College, for the purpose of receiving the signatures of those persons who have sufficient understanding and humanity to prefer the welfare of the living to any mode of disposing of the perishable materials of the dead body:—

'We whose names are hereunto affixed, being convinced that the knowledge of Anatomy is of the utmost value to mankind, inasmuch as it illustrates various branches of natural and moral science, and constitutes the very foundation of the healing art; and believing that the erroneous opinions and vulgar prejudices which prevail with regard to dissection, will be most effectually removed by practical examples, do hereby, deliberately and solemnly, express our desire that, at the usual period after death, our bodies, instead of being interred, should be devoted by our surviving friends to the more rational, benevolent, and honourable purpose of explaining the structure, functions, and diseases of the human being.'

(Here follow the signatures.)

"We are further authorised to state, that in order to meet the prejudices against disinterment, 4*l.* will be paid to any persons who may deliver at the Anatomy House, Trinity College, the body of a relative, which, after its structure has been examined, shall (if desired) be buried in consecrated ground."—*Morning Newsletter.*

In another part of the same print we observe an editorial article on the present state of the study of Anatomy, as it has to struggle with the ignorance and prejudices which so extensively prevail in society with regard to the disposal of the dead. The following passages will not be unacceptable to our readers.

We admit the prejudices from which these difficulties spring have something amiable in their nature, and therefore ought to be treated with ten-

derness. It cannot be denied that arguments could be sustained with much plausibility, on the ground that a delicacy with regard to the remains of departed humanity is an essential ingredient in civilized life; and that the ferocious passions are guarded against, or kept in check, by encouraging in society a sort of awe, or even horror, on viewing the mutilation of a corpse. "The finer feelings are," say the ingenious opponents of dissection, "materially deteriorated by the practice of anatomy; and the science has now been brought to such perfection, that the use of subjects may be almost entirely superseded by anatomical plates, the vast supply of preparations with which all the schools of anatomy abound, and the exquisite artificial subjects which have been made of wax and other materials."

Such arguments we have heard urged with great earnestness; and we must confess they at one time had some weight with ourselves. But to a considerable amateur acquaintance with the merits of the question, and a tolerably extended knowledge of human nature, our objections have entirely given way. We have seen the greatest and most insuperable detestation of anatomy prevail amongst those whose passions were ferocious, and who would not hesitate to sacrifice the life of a fellow creature, either in a sudden gust of fury, or under the more deliberate influence of revenge. As to anatomy obliterating the feelings of delicacy, we are convinced that the idea is altogether inconsequential; for we know many experienced anatomists whose minds are as free from pollution in this respect, whose souls are as refined, and whose hearts are as sensitive, as those of the most squeamish of the individuals who shudder at the bare mention of the word anatomy. The truth is, real delicacy must owe its existence and perfection to the sentiments inculcated by sound philosophy, morality, and genuine religion. Without the operation of these three principles on society, or on the individual, delicacy will retain but a very slight hold, and be quite inefficacious for any useful or substantial purpose; and with them for its guardians, it will never be shaken by such a science as that in question. We do not give this opinion with a wavering mind, or without due consideration, but venture to pronounce it with the firmest confidence.

The main query, however, is—can

the science of anatomy be acquired—can a sufficient knowledge of the human frame be attained by the operative surgeon and practical physician, without the use of real subjects? We answer unhesitatingly that it cannot. If we prevent those to whom the health of society is given in charge, from operating on the dead, they must, as an eminent Professor has judiciously remarked, *PRACTISE ON THE LIVING!* In many operations in surgery, the wounding of a nerve may be attended with the most fatal consequences. Now, though a good general idea of the human frame may be communicated by anatomical preparations, drawings, and other artificial means, the operating surgeon who trusted to these, alone would be a very improper person to experimentalize in the critical cases which modern skill has frequently treated with a success which a few centuries ago would have been attributed to miracle.

It seems to us, therefore, that the question may be brought into a nutshell. Would we prefer having the lives of our dearest living friends placed in jeopardy, and all hopes of their recovery in intricate cases of organic disease flung to the winds, to having the inanimate, insensible frame, made the subject of research, for the benefit of the present and future generations?

If the present strict and organized opposition to the acquiring of subjects for dissection continue in its full rigour, the legislature must take up the matter, and provide some remedy.

However, we must here be impartial, and candidly admit that the most indecent, the most revolting excesses, have been practised, not only by the common hirelings called 'Resurrectionists,' but also by several of the medical students, whose station in life ought to have been a guarantee against such scandalous conduct. We have heard, from unquestionable authority, of corpses being carried, in a state of nudity, and in an erect position, in open jaunting-cars through the public streets, at an early hour in the morning, while the violators of public decency shouted and made so much noise, that the inhabitants of the houses by which those ruffians passed, left their beds to have their feelings lacerated, and, horror-struck with so shameful an exhibition, became ever after the unbending foes of the system which gave rise to it.

Besides, it is not for what is termed

"home consumption" alone that bodies have been procured; for a *wholesale* trade, principally for the Scotch market, has been carried on: and it is almost incredible to what an extent this disgusting system has been practised.

SOCIETY OF APOTHECARIES
versus RYAN.

A NEW trial is to take place in this case, in consequence of Mr. Watson being deemed by the judges an ineligible witness. Lord Tenterden stated that the rule to shew cause was granted on this ground alone, and not from any doubt as to the previous decision being otherwise according to law. It is of importance for medical practitioners not to be misled by the attempts to blind them on this subject. We repeat that an action lies against any one who (not having been in practice before 1815) attends a medical case and supplies medicine, even although he may be a member of the College of Surgeons. In the suit in question, the judges declared that they entertained no doubt of the case on which the verdict was returned having been medical.

PARISIAN INTELLIGENCE—FA-
CULTE DE MEDICINE.

M. RICHARD has been appointed, by *concours*, with the unanimous approbation of his judges, the new professor of medical natural history. He had no competitor, but went through all the exercises alone. MM. Foy and Fourreau de Beauregard merely entered the lists with him at starting, but they presently retired; dissatisfied, it is said, with the arrangement and form of the jury. On the 2d of May, the *concours* for the chair of Physiology will be opened; the names of the candidates are not yet fully known, but M. Bernardin is talked of confidently as likely to be the successful man.

ROYAL INSTITUTION,

Friday, April 15, 1831.

B. B. CABELL, Esq. F.S.A. VICE-PRES.
IN THE CHAIR.

*Mr. J. G. Daniell on the Attractions
and Forms of the Ultimate Atoms of
Crystals.*

MR. DANIELL commenced a very able detail of some of his researches into the philosophy of crystalization, by giving a succinct account of the most important parts of Haüy's theory, and then shewed, that the cleavage of certain crystals takes place in directions contrary to those in which they have the least attraction from contingent atoms, which renders this hypothesis untenable; and next adverted to the late Dr. Wollaston's very ingenious speculation, which, instead of several primitive forms, supposes but one, and that a sphere; which has been subsequently modified by the belief, that in some substances the sphere becomes an oblate, and in others an oblong spheroid. There were, however, some difficulties inseparable from even this simple hypothesis, some of which have been removed by Mr. Daniell's experiments, recorded in the *Journal of Science*, and well known to the philosophic world; and another abstruse phenomenon, viz. that of the different diameters of crystals increasing and diminishing in different degrees for equal increments of heat, which has been explained by Professor Michelli; and this results from the balance of the attractive power of the atoms, and the repulsive power of the elastic atmospheres with which each is believed to be surrounded, being necessarily increased and diminished in different ratios, as the atmospheres surrounding spheroid atoms would be greater at their short than at their long axes.

The meeting this evening was very fully attended. In the library were numerous interesting specimens from Ceylon, sent to the Institution by J. R. Smith, Esq.; amongst which, a staff of ash wood, which had been admirably dissected into layers by the larvæ of some insect, was not the least curious. There was likewise a model of Mr. Jearard's invalid bed, a very ingenious contrivance, by which the patient may be

turned and placed in every variety of position without disturbing a fractured limb, or that trouble and fatigue which is necessary to move a paralytic sufferer. The mechanism is however, we fear, too complex to allow of its common use, although its price, considering the labour, seems to us very moderate. Mr. Faraday likewise shewed the curious experiment of Mr. Trevillian, of which some account has already appeared in the Journal, by which, when a heated poker, or any piece of heated metal, is laid on another piece which is cold, a vibratory sound is heard, which lasts as long as the two metals are of different temperatures.

The announcement for Friday, 22d of April, is, Mr. Marshall on the origin of cow-pock, and on the probable causes of the occasional failure of the protective influence of vaccination.

EXTRACTS FROM JOURNALS,

Foreign and Domestic.

EXPERIMENTAL SURGERY.

M. MAGENDIE lately performed rather an "untoward" operation on a woman aged 30, a patient in the Hospice de la Vieillesse. Her complaint was a cancerous ulcer of moderate size, situated in the lower lip, near the right commissure of the mouth. A large number of spectators assembled to witness the operation, for there was a rumour that it was intended to remove a part of the lower jaw. After some delay, M. Magendie went deliberately to work. The first incision was made through the soft parts, vertically from the middle of the lower lip to the symphysis of the chin; and then a second, parallel to the first, from the right commissure of the lips down to the base of the jaw. The knife was then carried along the base, so as to remove a quadrilateral portion of the integuments, containing in it, of course, the cancerous part. It was now discovered that the bone was by no means diseased; it was necessary, however, that the interval between the vertical incisions should be closed up; and the operator, after some minutes spent in reflection, could hit upon no better way

of effecting this than by removing the sound bone corresponding with that interval. This he accordingly did; but, owing to the extreme suffering and restlessness of the patient, it was not easily done: done, however, it was. One little artery was *twisted*, the incised surfaces of the bone were drawn towards each other, and the integuments, which were brought into close contact, were secured by three needles. Nothing remarkable in the state of the patient occurred during the day. In the night the house-surgeon was called up for a supposed hæmorrhage: he found the patient *dead*, and there had been no hæmorrhage! On inspection of the body, no organic lesion could be detected adequate to account for so sudden a catastrophe; and as to the parts removed in the operation, it appeared that all the cancerous portion had been taken away, and that the piece of bone which had been sawn out was perfectly healthy.—*La Lancette Française*.

ATROPHY OF THE MAMMÆ FROM HEMLOCK.

Professor d'Outrepoint, of Würzburg, relates some curious cases illustrative of the effects of hemlock in galactirrhæa. The morbid profusion of milk in the breasts, in this complaint, is accompanied frequently with hysteria, hectic fever, general emaciation, with extreme dryness of skin, and impairment of the mental functions. Menstruation is suppressed, and the patient becomes sterile, or at least less apt to conceive. The local remedies commonly employed are more or less prejudicial: constitutional treatment is found to be more efficacious. Light purgatives, such as the neutral tartrate of potash in small doses, with diuretics occasionally, and diaphoretics, are attended with good effect: bitters too, and chalybeate waters taken internally, are much to be recommended. Yet cases occur in which the secretion of milk, continuing after the weaning a child, becomes extremely difficult to be managed; and *specifics*, in consequence, have been tried by many physicians. Hemlock has been had recourse to in a special manner. Its action on the mammary glands is remarkable; for it not only depresses their functional powers, but, if applied for any length of time, produces a complete atrophy of the mammæ, to the full extent of rendering them barren in

all future pregnancies. This has been already noticed by Professor Benedict, of Breslaw; but two cases of recent occurrence, which M. d'Outrepont adduces, may be briefly adverted to in illustration.

1. An actress of much beauty was troubled for several months after her confinement with the excessive fullness of her bosom, together with a superabundant secretion of milk. All the usual remedies were tried in vain. At length her physician ventured to prescribe for her a weak infusion of hemlock, which she used for two days. The lactation suddenly stopped, but her breasts wasting away, the lady became very uneasy. Shortly after, she became pregnant again, but no symptom of activity about the mammary glands could be perceived. During her confinement there was a slight fullness, and a few drops of milk were elicited; but the symptoms presently ceased for ever.

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- I. The different Systems of Botany, both natural and artificial, particularly those of Linnæus and Jussieu.
- II. The Structure and Growth of Plants.
- III. The different Parts of Plants, with their descriptions and uses in the process of vegetation.
- IV. The Natural and Chemical Analysis of Vegetable Matter.
- V. The Medical Uses of the most important Articles in the *Materia Medica*, with observations on the best modes of preparing them. These remarks may be made either at the Lectures or at the Demonstrations, at the discretion of the Lecturer.

That the conducting these Demonstrations and Lectures be committed to the Society's Demonstrator of Botany, and that the Monthly Lectures hitherto delivered by him at the Gardens be discontinued, as merging and more effectually provided for in the lectures now proposed to be adopted.

That in order to give encouragement to diligence and talent, there be an annual examination of such students as may think proper to become candidates for the prizes intended to be given on these occasions. The Examinations to be upon some or all of the subjects stated in the foregoing series of lectures, as well as upon their skill in the nomenclature of plants. No person to be admitted a candidate who has not attended these lectures and demonstrations at least eighteen days in one summer, or thirty days in two succeeding summers, nor shall any prize be awarded unless this examination be performed to the complete satisfaction of the Examiner or Examiners for the time being.

To prevent partiality or undue preference, no public Professor or Lecturer, whose pupils are admitted to the Garden, can be appointed an Examiner.

The apprentices to members of the Society, having an annual opportunity of being candidates for prizes upon the ancient establishment, cannot be admitted candidates on these occasions, either during the period of their apprenticeship, or subsequently to the conclusion of it.

That two medals, the one being of gold, of ten guineas value, and the other of silver or bronze, be annually awarded to the two candidates, who shall have passed the best and second best examination in manner herein-before mentioned, but no medal is to be given unless in the opinion of the Examiner or Examiners the candidates shall be deemed deserving of it.

The Beadle, or some proper person, is to attend at the Garden on each day of admission, to receive the visitors, and to enter or cause their names and the names of their Tutors to be entered regularly in a book to be provided for that purpose, and also to note therein any misconduct or breach of established regulations which may come to his knowledge during such attendance, giving information thereof to the Master and Wardens.

That the following be the regulations for the admission of students:—

"It is intended that admission shall be given to all such Medical Students as are pupils to the established Professors and Lecturers in the metropolis, whether upon Medicine, Chemistry, *Materia Medica*, or Botany; such Students to apply at least three days prior at the Beadle's office, in Apothecaries' Hall, for Tickets of admission for that purpose, which the Master and Wardens will grant to such persons as they may think proper.

"In order that the Master and Wardens may be enabled to exercise suitable discretion in granting such Tickets, each Student must leave with the Beadle a Letter of Recommendation from his Tutor, stating that such Student has been attentive to his studies, and is, in his opinion, desirous of improving himself in the Science of Medical Botany.

"That a Ticket be given to each Student, and that such Ticket be renewed annually."

By order,

EDMUND BACOT, Clerk.

Apothecaries' Hall,
Feb. 1st, 1830.

BOOKS RECEIVED FOR REVIEW.

An Essay on the Influence of Temperament in modifying Dyspepsia in Indigestion. By Thomas Mungo, M.D. &c. &c.

Illustrations of Mr. S. Cooper's Surgical Dictionary. Parts VII. to XII. inclusive.

*** They continue to deserve the high character we have given of the previous Numbers.

A Treatise on the Excision of Diseased Joints. By James Syme, F.R.S.E. Surgeon of the Edinburgh Surgical Hospital, &c.

NOTICE.

Will "Censor" furnish us with his name, confidentially? we merely wish to be assured that his statements are correct.

ERRATUM.

In Mr. Beale's letter, in our last, page 90, line 10 from the commencement of the article, for "inexclusiveness," read "exclusiveness."

W. WILSON, Printer, 67, Skinner-Street, London.

THE LONDON MEDICAL GAZETTE,

BEING A
WEEKLY JOURNAL

OF
Medicine and the Collateral Sciences.

SATURDAY, APRIL 30, 1831.

OBSERVATIONS
ON
CALCULOUS DISEASES.

By B. C. BRODIE, F.R.S.

As delivered by him in his Surgical Lectures.

III.—*History and Symptoms of Calculi of the Bladder.*

ANY solid body which is retained in the bladder for a certain time is liable to have calculous matter deposited in it. Thus a calculus is generated, which increases in size more or less rapidly according to the composition of the urine.

The most common origin of a calculus of the bladder is a calculus, which has been formed in the kidney, which has descended by the ureter; and which is either too large to be voided by the urethra, or which is prevented entering the urethra by the projection of an enlarged prostate gland.

In some instances the nucleus is formed by a foreign body, which has been accidentally introduced into the bladder. The late Mr. Wilson removed a stone from the bladder of a female, and on sawing it through discovered a common hazel-nut in its centre. Mr. Wilson gave a portion of the stone, with the corresponding portion of the nucleus, to the late Mr. Heaviside, at the sale of whose museum I purchased it, with the rest of his collection of calculi, and thus you have the opportunity of seeing this singular specimen. A poor man, a gardener in the country, laboured under a stricture of the urethra. Occasionally he suffered from a retention of urine. Being an ingenious

fellow, he discovered that he could relieve himself in these emergencies by introducing a flower-stalk through the urethra into the bladder, using it as a bougie. In an evil hour, it happened that the extremity of the flower-stalk was broken off, and lodged in the bladder. The consequence was, that it became encrusted with calculous matter, forming the nucleus of a stone. Some time afterwards he was admitted into our hospital. Sir Everard Home performed on him the operation of lithotomy. He extracted a considerable oblong calculus, which lay partly in the urethra and partly in the bladder; and on examining it, the flower-stalk was discovered in its centre.

In this preparation you may see several calculi of a peculiar oblong figure, and of various sizes; the largest about three-quarters of an inch in length and one-third of an inch in breadth; but the greater number of them very much smaller, and proportionally narrower; each of which has a small fine hair running longitudinally through its centre. They are from the bladder of a female, and are composed chiefly of the phosphate of lime, which circumstance, as I have explained already, indicates disease of the mucous membrane. It is difficult to say how these hairs came to be in the bladder; whether they were common hairs introduced accidentally, or whether they were some of those hairs which are found occasionally in encysted tumors, and in other diseased structures. I suspect them to be of the latter origin. I attended a gentleman who laboured under stone in the bladder, and also under a disease in the kidneys, of which last disease he died; and in whose urine I every now and then detected

small hairs, which I had reason to believe had come from the bladder. Unfortunately, there was no post-mortem examination either in this case, or in that of the patient from whom these calculi were taken.

In cases of diseased bladder, where the mucous membrane is affected with chronic inflammation, earthy matter, composed chiefly of the phosphate of lime, is formed in small masses, resembling mortar; and any one of those which happen to be retained in the bladder is liable to have additional calculous matter deposited on it; thus forming the nucleus of a calculus.

Calculi of the bladder differ very much in their appearance and other sensible properties: they differ very much also in their chemical composition. Of late years they have been made the subject of repeated and minute analysis. These investigations, so important to human nature, and so interesting to the members of our profession, were begun by the late Dr. Wollaston. He was followed by several other chemists, but those who, after him, have contributed most to the advancement of our knowledge of the subject, are Mr. Brande, Dr. Marcet, Dr. Prout, Dr. Henry, and Dr. Yelloly. I shall present you with a brief summary of the observations which these distinguished chemists have offered to the world as the result of their researches.

The substances which enter into the composition of calculi of the bladder are these:—

1st. Lithic acid. These calculi are generally of an oval form, and slightly flattened; of a brownish red colour, approaching to that of mahogany; pretty smooth on the surface, but not polished, except occasionally from friction, when there are two or more calculi in the same bladder. If broken, the lithic acid calculi split into concentric laminæ.

2. Oxalate of lime. Calculi of this kind are also distinguished by the appellation of *mulberry*. These are of dark brown colour, approaching to black; rough and tuberculated on the surface, very hard, imperfectly laminated.

3. The triple phosphate of ammonia and magnesia. This salt forms a fragile calculus, and when broken it does not, like the lithic acid calculus, split into concentric laminæ. The surface of it is uneven, covered with minute crystals.

4. Phosphate of lime. Calculi composed of this substance, unmixed with other calculous matter, are rarely found in the bladder; and when they are, there is reason to suspect, from Dr. Prout's observations, that they have their origin in the secretions of the bladder itself, and not in the urine. These calculi are of a pale brown colour, and of a laminated structure.

5. Although it is rarely that we find a bladder calculus composed altogether of phosphate of lime, we frequently find this salt existing in combination with the triple phosphate of ammonia and magnesia. This mixed calculus is of a white colour; friable; not unlike a mass of chalk in appearance; not in general laminated. It melts into a vitreous substance when exposed to heat in the flame of a blowpipe; and hence it has received the name of the fusible calculus. Neither of the two salts of which it is composed (that is, neither the triple phosphate, nor the phosphate of lime) melt in this manner when exposed to heat singly, although they are so easily fused when in combination with each other.

6. Lithate of ammonia. This variety of calculus is of clay colour; sometimes it is smooth, and other times tuberculated on its surface: it is composed of concentric layers. Dr. Prout regards it as being confined chiefly to children.

7. Lithate of soda. This is a rare calculus, of a white colour, like the chalk-stones of gout, probably formed where a patient, having a lithic acid diathesis, takes large quantities of soda. I was first informed of the existence of this kind of calculus by Dr. Prout. In our collection of calculi you will see a fine specimen of it, with a deposit of pure lithic acid on its surface: probably there is a nucleus of pure lithic acid also.

8. Cystic oxide: this is a very rare kind of calculus: it is of a white colour, and when broken, it is found (to use Dr. Prout's own words) not to be laminated, but appearing as one mass, confusedly crystallized throughout its substance.

9. Calculi are sometimes composed of carbonate of lime, but these are of very rare occurrence indeed: the carbonate of lime, however, is frequently blended in small quantity with other ingredients.

10. Dr. Marcet has also described a variety of calculus under the name of

xanthic oxide; and another under that of the fibrinous calculus.

11. The fibrinous calculus appears to be composed of the fibrine of the blood. I have never met with but one example of it. This was of an oval shape, about the size of a horse-bean, yellow, semi-transparent, not very unlike amber in appearance, but less hard. When dried it shrunk to a small size, and became, as it were, shrivelled. I found it in the bladder after death, where no disease of the bladder had been suspected to exist during the patient's life. In this case the kidneys had that peculiar appearance which Dr. Bright describes as observable where the urine has been albuminous. When we consider how near fibrine and albumen are to each other in their chemical relations, we cannot but suspect the fibrinous calculus to be a deposition from albuminous urine. Unfortunately, in this instance the chemical properties of the urine had not been examined.

In some cases we find a calculus composed throughout of one of the substances, which have been described, nearly pure; but at other times we find these substances variously combined with each other. The best mode of examining a calculus is to have it sawn through the centre. We then find, that in some of the compound calculi, the different substances are disposed in layers, the lithic acid distinct from the oxalate of lime; the oxalate of lime distinct from the triple phosphate, and so on; while in others they are intimately blended together.

It is only when they are divided in the manner which I have mentioned, that we can learn the true history of the formation of calculi. As Mr. Brande long ago observed, the centre or nucleus is generally either lithic acid or oxalate of lime. In many cases the additions to the calculus are of the same chemical composition with the nucleus; in other cases, we find the lithic acid deposited on the outside of the oxalate of lime; and more rarely, the oxalate of lime is deposited on the surface of the lithic acid. The deposit of lithic acid, or oxalate of lime, may take place in the bladder where there is no evident disturbance of the general health. If the general health becomes affected, and the bodily powers of the patient are impaired, either from the irritation of the stone

in the bladder, or from any other cause, the urine becomes alkaline, and, in consequence, the subsequent additions to the calculus are formed of the triple phosphate of ammonia and magnesia. When the calculus has existed for some time in the bladder, it frequently happens, and indeed it always happens sooner or later, that the mucous membrane becomes inflamed; adhesive, tenacious mucus is secreted, which contains phosphate of lime; and this, being blended with the triple phosphate, forms the fusible calculus. Calculi formed in the ducts of the prostate gland, as I shall explain to you hereafter, are composed of phosphate of lime, pure, or nearly so: whatever may be the condition of the bladder, it very rarely happens that you find a simple phosphate of lime calculus in it. The phosphate of lime may be deposited in small masses, as I have explained to you formerly, but this nucleus being exposed to the contact of the urine, and the health becoming impaired, as always is the case under these circumstances, the triple phosphate is added to the phosphate of lime, so as to constitute a fusible calculus.

For these latter observations I am indebted to Dr. Prout. He has also furnished us with a knowledge of the following most important and interesting facts in the history of calculous formations. The phosphates very rarely form the nucleus of a calculus; but being once deposited, they continue to be so, and are never followed by other depositions. The phosphates may succeed the lithic acid, or the oxalate of lime, but neither of these ever succeed the phosphates. If the external surface of a calculus is composed either of the lithic acid, or of the oxalate of lime, you may be certain that there are no phosphates in the interior; whereas, if there are the phosphates on the outside, the general rule, to which there are but few exceptions, is that some other substance lies underneath.

Calculous disorders prevail differently in different classes of society, among individuals of different ages, and in different climates and districts.

Among the lower classes, children are much more liable to calculi than adult persons. You know how large a proportion of our hospital patients admitted for lithotomy are children. On

the other hand, in private practice, that is, among the upper classes of society, very few of our patients are children, and the great majority are persons above fifty years of age. Nor are these things of difficult explanation. The great majority of calculi are originally composed of lithic acid, that is, have a lithic acid nucleus; and, in a former lecture, I pointed out some circumstances which are likely to make the children of the lower classes, and those who have advanced in life among the higher classes, especially liable to this kind of deposit.

In all classes, persons of a middle age are less frequently affected by stone in the bladder than those who are younger or older.

Women suffer less frequently from this disease than men. Their more temperate mode of life accounts, in part at least, for the difference; much, however, is to be attributed to the more simple construction and greater diameter of the urethra, in consequence of which stones are voided by them which would inevitably have been retained in the bladder of the other sex.

Mr. Copland Hutchison has published some observations which are intended to shew, that calculus of the bladder is very rare among sea-faring persons; much more so than in other classes of society: and hence he is led to conclude, that there is something in the peculiar life of a sailor, which is unfavourable to the production of this disease. However, if you bear in mind what I have just now stated, as to the greater prevalence of the disease among children, and among those who are advanced in life, and recollect also that among sailors there are no children, and very few old men, you will, I conceive, find a sufficient explanation of the fact in question, without resorting to Mr. Hutchison's explanation of it. Besides, it must be very difficult to obtain data sufficiently accurate to enable us to form any positive opinion on such a subject. I have myself operated on two officers in the navy, who were affected with stone in the bladder, and in whom the symptoms of the disease began while they were engaged in active service: and I conceive that these are quite as many cases as were likely to occur in my practice, even supposing the disease were as common in the navy as it is among us landmen. As to the proportion of common sailors who are

admitted into the hospital labouring under stone in the bladder, we have no records enabling us to say any thing on the subject.

It is observed that calculi of the bladder prevail particularly in certain districts, while in some other districts the disease is extremely rare. I have a patient, a clergyman, who resides sometimes near Norwich, and sometimes near Bristol, and who, at the former place of residence, observes the urine to deposit lithic acid sand, which it never deposits while he is at the latter. This may be attributable, perhaps, in part, to peculiar diet and mode of life. Dr. Prout believes, that hard or impure waters tend to the production of calculi. These explanations, however, are not altogether satisfactory. In some districts in which the disease is unusually prevalent, we find, if I am not much mistaken, that there are not only more calculi with a lithic acid nucleus, but also more with a nucleus of oxalate of lime, than in other parts of the country, and it is difficult to understand how the agency of the same cause should produce in different individuals calculi of such different chemical composition, and depending on such different states of system.

A calculus for the most part lies loose in the bladder, being capable of moving, according to the laws of gravity, from one part to the other of the cavity in which it is placed. It is only in a few cases that it is otherwise. Here is a specimen of encysted calculi. The original disease, as you may perceive, was an enlarged prostate gland, which prevented the patient emptying the bladder. I conclude that the catheter was not used, as it ought to have been, for the purpose of emptying the bladder artificially. The consequence has been, that the patient was continually straining to make water, and that the mucous membrane, by the pressure of the urine, has been caused to protrude in the interstices between some of the muscular fibres, forming small cells or cysts. Some small calculi, which escaped from the kidney, have found their way into these cysts, and have become lodged or impacted in them.

In the preparation which I now shew you, there is a cyst of another kind. The case is in many respects remarkable. I discovered a stone in this gentleman's bladder. But he was advanced

in years, and as for the most part he suffered very little inconvenience from the disease, he did not wish to go through any dangerous operation for the sake of obtaining relief. As there was good reason to believe that the disease had existed for a great many years, and as the stone was evidently of a large size, I could not say that the operation of lithotomy was otherwise than dangerous, and I therefore did not urge him to submit to it. He went on, in general suffering little or nothing. He was a convivial man, dining a great deal in society, as if he had no ailment. Every now and then, however, he was suddenly seized with the usual symptoms of stone in the bladder, and very severe ones too. He then sent to me; I kept him in the horizontal posture, prescribed him an opiate clyster, and in the course of a few days, sometimes sooner, sometimes later, the attack subsided; he was again at his ease, and enabled to return to his usual habits. I had been in the habit of attending him occasionally for three or four years, when he was seized with a severe cold, which ended in a pleurisy, of which he died. On examining the body, I found the stone imbedded in a cyst near the fundus of his bladder. The cyst was formed in this case, not by the protrusion of the mucous membrane between the muscular fibres, but by a dilatation of both tunics of the bladder, the muscular as well as the mucous. It was such a receptacle as you would suppose a large calculus, which had long been resident in the bladder, might gradually have made for itself. If you look at the preparation, you will see that the stone was not so closely embraced by the cyst as to prevent it occasionally slipping out of it; and I suspect that this actually happened, and that it was, when the stone lay in the cyst, that the patient was free from the usual symptoms of calculus, and that his sufferings took place when the stone escaped from it into the general cavity of the bladder.

You will hear not unfrequently of calculi which adhere to the bladder; but you may be assured that this is a very unfrequent occurrence, nevertheless. Adhering calculi are very rare. Ask all experienced surgeons, and they will tell you what I tell you now. It is not very uncommon to find a diseased bladder, a portion of which is encrusted with calculous matter; but that is a

very different thing from an adhering calculus, and not at all likely to be mistaken for a stone in the bladder. It occasionally happens that coagulated lymph is effused from the inflamed mucous membrane of the bladder. The inflamed mucous membrane also secretes that adhesive mucus which contains the phosphate of lime, as I explained to you formerly. A portion of the phosphate of lime thus produced, mixed probably with some of the triple phosphate from the urine, is deposited on the lymph, and thus the incrustation takes place. It corresponds exactly to the incrustation of the wound of the perineum which occurs after lithotomy, where the operation is followed by the secretion of the same ropy mucus from the bladder.

In many cases you find only a single stone in the bladder; in other instances there are two or three stones. In the latter case they are more or less polished on the surface, from rubbing against each other. Occasionally there is a still greater number of stones in the same bladder,—ten or twenty, or even thirty or forty. The greater the number of stones, the greater the quantity of friction: and you will see in some of these specimens how calculi, under these circumstances, are rubbed into the form of irregular polyhedrons.

We have next to consider the symptoms produced by calculi in the bladder.

The first thing that will strike you when you come to study the disease in the living person is, the different degrees of suffering to which different individuals are subject, and even the same individual in different stages of his complaint.

The symptoms differ; 1st, according to the size of the stone, the smoothness and roughness of its surface, and its general figure:

2dly, According to the quality of the urine. Thus, the urine may be unusually acid, or it may be alkaline, and depositing the triple phosphate; and in either case it will be too stimulating for the parts with which it comes in contact, and the symptoms of the stone will be thereby aggravated:

3dly, According to the state of the bladder. Nothing aggravates the symptoms so much as the occurrence of inflammation of the mucous membrane. This increases the sensibility of the

bladder a hundred-fold, and causes a small stone to produce a much greater quantity of distress and pain than a large one produces under ordinary circumstances.

If the bladder be healthy, a very small stone produces very trifling and indeed very equivocal symptoms. The patient has the inclination to make water induced by a rather smaller quantity of urine in the bladder than under ordinary circumstances. He has a sense of irritation, scarcely amounting to pain, referred to the neck of the bladder, to the urethra, perhaps to the hypogastrium, after the bladder is empty. In one instance, for many months the patient complained of nothing except an occasional pain, and that but trifling, in one groin, and of the urine being tinged with blood, after riding on horseback. Bloody urine, after any jolting exercise, is a strong indication of a calculus somewhere, either in the bladder or kidney. Where it arises from other causes once, it arises from this cause forty times. But this symptom is often wanting in the early stage of the disease, while the stone is still small, especially where the patient leads (as often happens) an inactive life. A small stone occasionally falls on the inner orifice of the urethra, while the patient is making water, and thus suddenly impedes or stops the flow of urine. This is one of the most characteristic symptoms of the disease in its origin, but even this is often either wanting or not observed for a long time.

As the disease advances, and the stone grows larger, other and more decided symptoms shew themselves; which may be thus enumerated:—

1. A very frequent desire to make water; the impulse to do so being sudden and irresistible, and liable to be induced by the smallest change of position.

2. Pain referred to a particular point in the glans penis, at the extremity of the urethra; the pain sometimes being described as a severe yet dull pain, at other times compared to the effect of a hot iron applied to the part—that is, what is called a burning pain. This pain is most severe after making water, and after exercise, when the stone falls suddenly down on the neck of the bladder.

This pain in the glans penis is one of the most marked symptoms of the disease. A child who labours under stone

in the bladder, tells you of it, not in words, but by his actions. He is always pulling the end of the penis, and pinching it with his fingers, even so as to cause the prepuce to become elongated. You often find his fingers with the cuticle soft and sodden (as if they had been soaked in hot water), from the urine which has been imbibed.

3. The urine is frequently stopped as it flows from the bladder, by the stone falling against the inner orifice of the urethra.

Now the disease, in some instances, may exist for many years before these symptoms become very severe. A gentleman had experienced some slight symptoms for upwards of ten years; but they were so very slight that they did not in the smallest degree interfere with his comfort and usual habits. At the end of that time, being accidentally in London, he consulted me respecting them; but he felt so little inconvenience, and thought so little on the subject, that his doing so seemed to be almost a matter of accident. I examined the bladder, and detected in it this enormous stone which I now shew you. Some months afterwards, his symptoms became much aggravated. He now said that he could bear them no longer, and I removed the stone by the usual operation.

This case, however, is not in the common course of events. In general the symptoms are progressive and reach their height, so that the patient becomes a very great sufferer in the course of two or three years.

At first, the patient's general health is unaffected; but by-and-by the health begins to suffer, the urine becomes alkaline, and the triple phosphate is deposited on the original stone. Now all the symptoms are much aggravated. The alkaline urine is more stimulating to the bladder than healthy urine, and this is one cause of the patient's increased sufferings. Another is, that that state of the general health which causes the alkaline urine to be secreted by the kidney, is attended with an increased or morbid sensibility of the nervous system generally.

As the disease advances, the continued irritation kept up by the stone, induces inflammation of the mucous membrane of the bladder. There is now a still further augmentation of the patient's sufferings. The stone is rolling

about in an inflamed bladder, and you know how the sensibility of every organ in the body is increased by inflammation. The existence of this state of things is indicated by the greater pain, and by the desire to make water being almost constant; by the urine coming away offensive to the smell, soon becoming putrid and ammoniacal, and depositing the usual thick tenacious mucus streaked with blood. This mucus, as I have already explained to you, leads to the formation of the fusible calculus; and all that I have now stated will lead you to understand that different kinds of calculus are attended with different degrees of suffering. A patient with a simple lithic acid calculus, suffers less than one with a calculus composed externally of the triple phosphate; and the latter less than a patient with a fusible calculus. The oxalate of lime or mulberry calculus, on the whole, occasions more distress than the lithic acid calculus; probably on account of the irregularities which so frequently exist on the surface of the former: but it occasions less distress than the calculi composed of the phosphates.

Patients with enlarged prostate gland are particularly liable to stone in the bladder; and this it is easy to explain. The tumor of the enlarged prostate usually prevents the bladder being emptied without the aid of the catheter. The consequence is, that if a small calculus from the kidney finds its way into the bladder, it cannot escape in the usual manner by the urethra; it lies and grows in the bladder. For the same reason, lithic acid sand, or any thing else which can act as a nucleus, becomes, under these circumstances, the foundation of a stone in the bladder. The bladder is like a chamber-pot that is never washed out, and the component parts of the urine are very liable to be deposited in it, whenever there is any kind of nucleus to which they can adhere. Sometimes a diseased prostate gland causes the formation of calculi in the following manner. The mucous membrane of the bladder becomes inflamed, as a consequence of the other affection. The mucus secreted by it deposits the phosphate of lime in small mortar-like masses, and each of these becomes the nucleus of a calculus. In these cases, if you examine the body after death, you find probably several

calculi of irregular forms, of a white colour, rough on the surface; none of them being of a large size.

Patients with diseased and enlarged prostate do not in general suffer more from the stone in the bladder than other individuals. Indeed I am inclined to believe that, on the whole, they suffer less; probably in consequence of the tumor of the prostate preventing the stone falling down on the neck of the bladder. I have, however, seen three cases, in each of which there was a stone in the bladder, complicated, not only with an enlarged, but ulcerated prostate; and the sufferings of these patients were greater than I had ever before witnessed in persons labouring under the same disease. They were, indeed, most horrible. In two of these cases, the surgeon who was in attendance (as I think) indiscreetly performed the operation of lithotomy. One of them died in about five minutes after the operation; the other became immediately comatose, and died in a few hours. The third patient was admitted into our hospital, under the late Mr. Ewbank. The symptoms were precisely similar to those which existed in the two other cases, and Mr. Ewbank, on the result of these cases being stated, very properly determined not to perform an operation, although the man had come into the hospital for the purpose. The poor fellow died in two or three days afterwards, and, on examining the body after death, we found a large stone and an ulcerated prostate, as had been anticipated.

Calculus in the bladder induces frequently an irritable state of the urethra, and thus causes a spasmodic stricture. It induces also increased efforts of the bladder to expel the urine, and thus the muscular coat of the bladder, after a certain time, always becomes increased in thickness.

Stone in the bladder, in the male sex at least, admits of nothing even approaching to a natural cure. The patient may live a year, or ten years, or even twenty years in a few rare cases, without any dangerous symptoms being induced. But dangerous symptoms are induced at last, and if he be not relieved by art, or cut off in some other way, the stone sooner or later proves the cause of death. Now it is worth while for us to consider how this fatal termination of the disease is produced.

I have just mentioned a case in which

bladder a hundred-fold, and causes a small stone to produce a much greater quantity of distress and pain than a large one produces under ordinary circumstances.

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As the disease advances, and the stone grows larger, other and more decided symptoms shew themselves; which may be thus enumerated:—

1. A very frequent desire to make water; the impulse to do so being sudden and irresistible, and liable to be induced by the smallest change of position.

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Now the disease, in some instances, may exist for many years before these symptoms become very severe. A gentleman had experienced some slight symptoms for upwards of ten years; but they were so very slight that they did not in the smallest degree interfere with his comfort and usual habits. At the end of that time, being accidentally in London, he consulted me respecting them; but he felt so little inconvenience, and thought so little on the subject, that his doing so seemed to be almost a matter of accident. I examined the bladder, and detected in it this enormous stone which I now shew you. Some months afterwards, his symptoms became much aggravated. He now said that he could bear them no longer, and I removed the stone by the usual operation.

This case, however, is not in the common course of events. In general the symptoms are progressive and reach their height, so that the patient becomes a very great sufferer in the course of two or three years.

At first, the patient's general health is unaffected; but by-and-by the health begins to suffer, the urine becomes alkaline, and the triple phosphate is deposited on the original stone. Now all the symptoms are much aggravated. The alkaline urine is more stimulating to the bladder than healthy urine, and this is one cause of the patient's increased sufferings. Another is, that that state of the general health which causes the alkaline urine to be secreted by the kidney, is attended with an increased or morbid sensibility of the nervous system generally.

As the disease advances, the continued irritation kept up by the stone, induces inflammation of the mucous membrane of the bladder. There is now a still further augmentation of the patient's sufferings. The stone is rolling

about in an inflamed bladder, and you know how the sensibility of every organ in the body is increased by inflammation. The existence of this state of things is indicated by the greater pain, and by the desire to make water being almost constant; by the urine coming away offensive to the smell, soon becoming putrid and ammoniacal, and depositing the usual thick tenacious mucus streaked with blood. This mucus, as I have already explained to you, leads to the formation of the fusible calculus; and all that I have now stated will lead you to understand that different kinds of calculus are attended with different degrees of suffering. A patient with a simple lithic acid calculus, suffers less than one with a calculus composed externally of the triple phosphate; and the latter less than a patient with a fusible calculus. The oxalate of lime or mulberry calculus, on the whole, occasions more distress than the lithic acid calculus; probably on account of the irregularities which so frequently exist on the surface of the former: but it occasions less distress than the calculi composed of the phosphates.

Patients with enlarged prostate gland are particularly liable to stone in the bladder; and this it is easy to explain. The tumor of the enlarged prostate usually prevents the bladder being emptied without the aid of the catheter. The consequence is, that if a small calculus from the kidney finds its way into the bladder, it cannot escape in the usual manner by the urethra; it lies and grows in the bladder. For the same reason, lithic acid sand, or any thing else which can act as a nucleus, becomes, under these circumstances, the foundation of a stone in the bladder. The bladder is like a chamber-pot that is never washed out, and the component parts of the urine are very liable to be deposited in it, whenever there is any kind of nucleus to which they can adhere. Sometimes a diseased prostate gland causes the formation of calculi in the following manner. The mucous membrane of the bladder becomes inflamed, as a consequence of the other affection. The mucus secreted by it deposits the phosphate of lime in small mortar-like masses, and each of these becomes the nucleus of a calculus. In these cases, if you examine the body after death, you find probably several

calculi of irregular forms, of a white colour, rough on the surface; none of them being of a large size.

Patients with diseased and enlarged prostate do not in general suffer more from the stone in the bladder than other individuals. Indeed I am inclined to believe that, on the whole, they suffer less; probably in consequence of the tumor of the prostate preventing the stone falling down on the neck of the bladder. I have, however, seen three cases, in each of which there was a stone in the bladder, complicated, not only with an enlarged, but ulcerated prostate; and the sufferings of these patients were greater than I had ever before witnessed in persons labouring under the same disease. They were, indeed, most horrible. In two of these cases, the surgeon who was in attendance (as I think) indiscreetly performed the operation of lithotomy. One of them died in about five minutes after the operation; the other became immediately comatose, and died in a few hours. The third patient was admitted into our hospital, under the late Mr. Ewbank. The symptoms were precisely similar to those which existed in the two other cases, and Mr. Ewbank, on the result of these cases being stated, very properly determined not to perform an operation, although the man had come into the hospital for the purpose. The poor fellow died in two or three days afterwards, and, on examining the body after death, we found a large stone and an ulcerated prostate, as had been anticipated.

Calculus in the bladder induces frequently an irritable state of the urethra, and thus causes a spasmodic stricture. It induces also increased efforts of the bladder to expel the urine, and thus the muscular coat of the bladder, after a certain time, always becomes increased in thickness.

Stone in the bladder, in the male sex at least, admits of nothing even approaching to a natural cure. The patient may live a year, or ten years, or even twenty years in a few rare cases, without any dangerous symptoms being induced. But dangerous symptoms are induced at last, and if he be not relieved by art, or cut off in some other way, the stone sooner or later proves the cause of death. Now it is worth while for us to consider how this fatal termination of the disease is produced.

I have just mentioned a case in which

there was an ulcerated prostate gland, and in which the patient died, no operation having been performed. But ulceration of the prostate is not commonly the cause, nor even the forerunner of death. In the great majority of instances, the immediate cause of death is the inflammation of the mucous membrane of the bladder. Chronic inflammation of the mucous membrane may exist, in a case of stone in the bladder, for a great length of time, without occasioning irretrievable mischief; and if the stone is extracted, the patient may recover and be as well as ever afterwards. But if the chronic inflammation becomes aggravated, so as to assume the character of acute inflammation, or even to approach acute inflammation, the situation of the patient becomes dangerous—I may say desperate. The inflammation extends up the ureters to the kidneys. Even the glandular structure of the kidneys becomes affected; it is rendered more vascular than natural, and softer than natural. In a woman who died in our hospital, under the care of Mr. Keate, having laboured under stone in the bladder for many years, the kidneys were found converted into a structure bearing no small resemblance to fungus hæmatodes. I do not say that it *was* fungus hæmatodes, nor do I believe that it was so; but it had, to the eye, much of the same appearance. Sometimes abscesses form in the kidneys, under these circumstances; at other times, where there is no actual abscess, you find, on examining the body after death, a collection of muco-purulent fluid in the pelvis and infundibula. Inflammation sometimes extends through the muscular tunic of the bladder, into the atmosphere of loose cellular membrane by which the bladder is surrounded, and putrid sloughing abscesses are formed in it. I need not enter into a particular history of the symptoms which arise where these circumstances exist. There are the symptoms of inflammation of the mucous membrane, superadded to those of calculus of the bladder; and for an account of the former it is sufficient for me to refer you to the observations which I made on the subject in my lectures on the diseases of the bladder and prostate gland.

In some cases, but these are very few in number, the bladder ulcerates, and the stone escapes from its cavity. The

bladder exhibited in this preparation is seen to have been ulcerated at its fundus. There were several calculi, and one of them, as you will perceive, had stuck in the ulcerated opening, and lay half in half out of the bladder. A middle-aged man was admitted into this hospital, in the year 1810, who had laboured under symptoms of stone in the bladder for the preceding ten years. He had also a fistula in perineo. Sir Everard Home proceeded to extract the stone by the usual operation. When, however, he had introduced the gorget, he found the stone (of the size of a walnut) lying in its concave surface, and he removed it with his fingers. No other stone could be discovered. The patient died on the fourth day after the operation. On examining the body after death, the bladder was found to be very much contracted, so that it was scarcely capable of containing an ounce of fluid. That, which had been its muscular coat, had degenerated into a kind of ligamentous substance. The mucous membrane bore marks of having been in a state of inflammation: it was extensively ulcerated, and the ulcer communicated with an ulcerated cavity in the perineum, in which the stone was lying at the time of the operation. The fistula in perineo communicated with the membranous portion of the urethra. A remarkable circumstance was observed in this case, which it is worth while for me to mention. One kidney was reduced to one-third of its natural size, and contained a considerable quantity of pus. The ureter on this side had its cavity entirely obliterated: it was nothing more than a ligamentous cord, extending from the kidney to the bladder.

A case came under my observation in which the patient died in a very short time after the operation of lithotomy, and in which there was found after death a very large abscess of the pelvis, communicating with the bladder by an ulcerated opening on one side of the neck of the bladder. In another case there was an abscess, which occupied nearly the whole pelvis, but having no communication with the bladder. Both of these cases occurred many years ago in our hospital, under the care of Sir Everard Home. I mention them, because the patients died so soon after the operation that it was evident that the abscesses must have existed before it was performed; and that they were the

consequence of the disease, and not of the operation. I suspect that abscess in the cellular membrane of the pelvis is not an uncommon occurrence in those cases, in which the patient is allowed to linger on and die of disease.

REMARKS
ON A
PECULIAR FORM OF HEADACHE,

Prevalent during the Summer of 1829.

"Ista dubio procul constitutio aëris est salu-
tifera maxime, quæ, ex stabilita lege naturæ, pro-
priæ anni tempestati respondet: Ideo nec hyems
tepida juvat, nec æstas pluvia."

Buchan. Observ. de Aëre.

*To the Editor of the London Medical
Gazette.*

Sir,

THE following communication may pos-
sibly be considered out of date. Ac-
cording as your opinion may be, you
will grant, or refuse it a place in your
valuable Journal.

I am, sir,

Your obedient servant,
C. H. HARDY, M.D.

United Hospital, Bath,
April 1831.

The summer of the year 1829 was un-
usually chill, and moist, and storms of
rain, and wind, principally from the
westward, remarkably prevalent.

In May, generally speaking, the
weather was fine; but the commence-
ment of June was close and lowering.
On the 14th, towards the evening, there
was a well-marked and very beautiful
"mackerel sky," which, in a few hours,
was followed by rain; and the constitu-
tion of the summer remained the same
throughout.

From the 15th to the end of the
month there was rain every day, with
the exception of the 17th and 29th. On
the 18th there was thunder.

The following month, July, was at
least as wet; it rained more or less
every day up to the 21st, the 6th and
the 9th excepted. From this time there
were several fine days, yet the weather
could not be said decidedly to change.

August again was gloomy, and dark
as ever; the atmosphere dense and

murky, and the hills almost constantly
shrouded by close and impenetrable
clouds.

The complaints of the season were,
as might be expected, asthenic, and
the symptoms of the numerous appli-
cants strikingly similar. Almost all
had pains of the head, vertigo, drowsi-
ness, and inaptitude for exertion, evi-
dently arising from atmospherical
causes, and which were intractable in
proportion to the duration of the re-
markable humidity. Their complaints,
decidedly atonic, were attended by very
great and indubitable prostration of
strength; and depletory measures,
which had frequently been employed by
other hands, were altogether unsucces-
ful, or rather had done harm. The ap-
pearance of the individuals applying for
relief was peculiar; not that of persons
seriously out of health, though the com-
plexion was sometimes dingy and sal-
low, and every motion languid and con-
strained. They had commonly pain,
very severe, of the temples; more fre-
quently of the right; never of both to-
gether; and when this pain shifted, it
was to the crown of the head, or the
brow, where it was equally pungent,
though superficial, and attended with
some, though no great heat. Whilst
detailing their complaints, the eyes of
the speakers, whether men or women,
frequently filled with tears. In some,
particularly females, the complexion
was florid and healthy throughout, so
much so, that a careless or indifferent
observer might be disposed to question
the truth of their statements. The
functions of the body, except that there
was an inaptitude to motion, and occa-
sional obscure rigors, were without ma-
terial derangement. The pulse was re-
gular, soft, and of ordinary power; the
tongue was clean and moist, a little in-
clining to white; the bowels regular—
in some few instances constipated; the
skin cool, and the appetite not very
bad, though there was sometimes nau-
sea, and occasionally bilious vomiting.
Nothing seemed to rouse them, and
they would lie, day after day, in or on
their beds, the pictures of health in
many instances, with the exception of
the heavy and sleepy appearance of the
eyes, and seemingly without a wish for
convalescence. For the most part the
attacks of headache were periodical.

A few words on the treatment will
bring the paper to a conclusion.

Very frequently the lancet, and almost always leeches, had been employed previous to the patients applying for relief, and invariably without benefit. Afterwards blisters were used to the nape of the neck, behind the ears, to the chest, and other parts where pain, or sometimes cough, or dyspnoea, seemed to call for them, ineffectually.—Where there was nausea, or actual vomiting, which occurred in a few instances, emetics were exhibited; and sometimes the stomach was easier after them, sometimes not. The head was never benefited. So clearly was this the case, that all these measures were finally discarded. In short, the only effectual remedy—but that, it is confessed, a slow one—was the quinine, sometimes alone, in a solid or liquid form, as it might happen; but more generally combined with aperients, such as rhubarb, or aloes, or occasionally with the sulphate of iron. Now and then more active purgation was necessary. After a time, perhaps a fortnight or three weeks, or sometimes longer, the patients very gradually discarded their indolence; the eyes lost their heaviness; they expressed themselves better, and were anxious for meat, which was always allowed them; and after another week or fortnight they were well, and following their usual avocations. Some, who came from a distance, were dismissed before they could be said to have recovered, partly because they at length seemed tired of confinement, and partly from an idea that their own country air might be of more service to them than medicine. Season, however, had evidently much more to do with their ailments than locality; and had the weather changed, it is fair to presume that the cure would have taken up an infinitely lesser space, and the number of sufferers have been remarkably diminished.

Should others of your readers have met with similar cases, which cannot be doubted, perhaps they may be induced to remark upon them; and whether with reference to these, or other complaints, it cannot but be profitable to observe the seasons of the year, though this has been too much overlooked.—For, “whatever is the cause of this neglect,” says our most excellent Sydenham, “I do affirm that the knowledge of seasons, wherein diseases are wont to come, is very advantageous for the phy-

sician, both as to the knowledge of the species of disease, and to the manner of extirpating it; and, when this observation is neglected, the event of either of these is not good.”

OBSERVATIONS ON TYPHUS.

By JAMES HOLBROOK, M.D.

[Continued from p. 41.]

In the foregoing theoretical history of the phenomena of fever, three distinct stages are pointed out; the first comprehending the impression made on the extremities of the nerves and capillaries, gradually extending over the whole constitution, and depressing the functions of the brain and nerves, and of the circulating system; during which state there is a suspension of all the secretions, and a consequent congestive and oppressed state of the vessels from whence those secretions are derived.

The continuance of this stage will depend upon the proportionate powers of the system to the morbid cause, and on the treatment adopted.

The second stage commences with a reaction of the vital powers of the system, from the shock sustained by the application of the infectious matter; and it would appear that there is an inherent power in the nervous system, after a certain time, to acquire increased sensation and energy from the stimulus of morbid agents, and of imparting that power to the capillaries and general circulating vessels, which may be considered as the vital principle, and is nourished and supported in the brain, spinal cord, and ganglions.

Practically this power is denominated simply reaction, when imparted to the circulating system, and which commences in the capillaries, gradually extending its action to the larger vessels and heart; the same as the *vis medicatrix nature* of Cullen.

This is the active stage of the disease, and in which all the resources of the medical art are required to controul and regulate the disturbance which is going on in the system.

It is now the peculiar predispositions to local affections, dependent on constitutional local causes, or on determinations given to particular organs by the operation of any of the causes of

local determinations and congestions, occurring coincidentally with the fever, and sometimes connected with predispositions formed by the known tendency to particular organs produced by the seasons, as of summer and autumn, to the head and viscera connected with the system of the vena porta, and of winter and spring to the lungs, are brought into action.

The third stage comes on when the powers of the system begin to flag, from the violence or long continuance of the local and general reactions operating on a system suffering from the specific influence of fever; and which is indicated by a general reduction of the powers of life, by a weakened and irritable state of the functions of the brain and nerves, and of the circulating system, with a corresponding change in the actions connected with the local affections previously induced, or which may afterwards have arisen.

Sometimes the injury sustained in one or more organs is so great that the powers of life can no longer be carried on, and the first indication of the exhaustion of the system is only the prestage of the inability of life being longer supported.

On other occasions the integrity of all the organs is still sufficiently maintained to admit of a hope of the successful operation of remedial measures.

In this stage there is sometimes a tendency to what has usually been denominated putrescency of the fluids, indicated by petechiæ, general fœtor of the secretions, foul sordes about the mouth, and a broken or dissolved state of the blood, giving rise to extravasations from the nose, gums, the bowels, and from the uterus in women; and in some cases of the latter, *i. e.* from the bowels and the uterus, it has happened that the secretion of urine has been nearly suspended, as if from that circumstance a greater determination of blood had been given to the system of the vena porta and the uterus, which the corresponding exhalants have been unable to support: hence the extravasation.

Enough has now been said for the recognition of these stages, but it must not be supposed that it is intended to maintain that the operations of nature, in a body labouring under the oppression of fever, is invariably carried on with these strongly-marked succession

of stages; on the contrary, cases frequently occur in which the first stage or state of depression of the nervous system has so completely taken possession of the constitution as to support its ascendancy over all the subsequent phenomena, by oppressing the vital principle, and thereby preventing those operations of the capillary and secreting functions necessary for relieving the system, or for the active development of the disease.

This depression is, however, not wholly kept up by the primary operation of the poison of fever, but the secondary or congestive effect, which acts as a further depressing power to the functions of the brain and nerves. This state is, therefore, not one of real want of power, or of exhaustion, but a state of oppression, in which the secretions are suppressed, and the brain, spinal cord, and all the viscera, more or less congestive, but particularly the former.

From these causes the balance of the different circulations are interrupted, particularly the system of the vena porta, by which the abdominal viscera become additionally congestive.

The importance of being acquainted with the congestive or secondary depressing power over the nervous system, is now made apparent; as it points out the object to which remedial measures should at this time be particularly directed, and the responsibility attendant on neglecting to have recourse to such active treatment as may be adequate to unburden the oppressed organs generally, and the brain in particular.

If, however, it happen to be the unfortunate case of the patient that, being deprived of the advantage of a properly directed treatment, sufficiently early applied, a protracted disease and a protracted convalescence is the result, if, indeed, he escape with life.

Under such circumstances the disease steals on, and an imperfectly developed reaction pervades the system; and the disease passes to the third stage, manifesting early a tendency to those phenomena, but materially modified throughout by the oppressed state of the vital powers.

[To be continued.]

CASE OF

IMPERFORATION OF THE VAGINA.

By GEORGE BENNETT,

Member of the Royal College of Surgeons in London, &c. &c.

BURNS observes, in the "Principles of Midwifery," that "The most frequent disease of the hymen is imperforation, in consequence of which the menses are retained, the uterus is distended, and the orifice of the vagina is protruded;" and "Menstruation is generally painful, and the uterus becoming enlarged, contraction at last takes place, and pains like those of labour come on, especially about the menstrual period; such a case may, therefore, by inattention, be mistaken for parturition."—Page 64.

The following case is illustrative of this opinion:—

Susan Kirtning, aged 20, residing at Plymouth, came under my care in July, 1837. The account I received was, that latterly (much to the alarm of a family among whom she resided in the capacity of a servant,) she had the appearance of being in a state of pregnancy, and frequently suffered such severe pain in the lumbar region, as to lead them to suppose that she was actually in labour. As she denied being in that state, she was taken to a physician; and his opinion was that she was pregnant, and in a very advanced stage. The family not being satisfied with this opinion, applied to me, and placed her under my charge. I found her with a pale sallow countenance, while from being robust she was now much emaciated, and had the appearance of a person who had suffered, and was still suffering, under some lingering pain. She had also hysterical symptoms, with severe pain in the loins. In answer to my inquiries, she replied that she had never menstruated, and that the bearing down pains were very severe. I immediately considered, from her statement, symptoms, and appearance, that her illness proceeded from suppression of the menses; and on emmenagogues being administered, the pain in the loins, and "bearing down," so much increased, as to lead me to suspect that some natural obstruction must exist, impeding the flow of the menses. I requested, therefore, her sister, who officiated as nurse, to ascer-

tain by examination if any obstruction of the vagina existed. On a subsequent visit I was informed she had made the examination, and found "there was no passage." Having ascertained its correctness by an examination myself, I explained to my patient the cause of her suffering, and the necessity of an operation being immediately performed for her relief. She expressed herself as anxious to undergo any thing that would relieve her from the great suffering she daily underwent; and I performed the operation immediately. I felt the thickened membrane, the cause of the obstruction, extending across the vagina, and perfectly impervious. I divided it, when a quantity of dark, viscid fluid, followed the incision, as well as a small quantity resembling the usual menstrual discharge. She immediately experienced relief, and a sponge was placed in the vagina for the purpose of preventing any reunion from taking place. In a few days after the operation her health was sufficiently restored to permit of a return to her usual occupations.

The usual time of menstruation again arriving, a similar return of pain as before experienced took place, and it was soon ascertained that the membrane had reunited; and, on inquiry, it was found that after the first day, feeling so well, she had taken out the sponge and neglected to return it. On examination, I could feel the membrane perfect, and the cicatrix formed by the reunion. I again performed the operation; the discharge was not in great quantity, and was of the natural appearance. The day after the operation the patient was attacked by peritonitis, which proceeded most probably from her having sat, soon after the operation, in a wet room. By immediately bleeding freely, both general and topical, she soon recovered; and attention having been paid to a prevention of reunion of the membrane, by means of a sponge, the vagina was prevented from again becoming imperforate. She returned to her former occupations perfectly recovered, and has since had her regular periods of menstruation without any difficulty, and soon regained her former health and strength.

London, April 25, 1831.

SOUNDS OF THE HEART.

To the Editor of the London Medical Gazette.

SIR,

I do not wish to be brought into a controversy, so you will excuse my anonymous contribution.

It must be acknowledged that your Gazette has hitherto pursued the most independent course, and in giving the letters of rival candidates for fame without comment, you have conferred an infinite favour upon the profession; for while the weakness or strength of either may be observed, the obstinacy of both is not the least remarkable. I allude more particularly to the recent discussions in your Gazette as to the actions of the heart; and I am sure Drs. Corrigan, Hope, Haycraft, &c. are by this time tolerably sick of the controversy. I have read all these discussions, I must say with pleasure, yet without conviction; for I feel persuaded they are all wrong—decidedly wrong. I maintain that both the first and second sound are produced entirely by the ventricles, and by them alone, the auricles remaining in a perfectly passive state, acting merely as reservoirs or pouches to hold the increased quantity of blood, filling up the auricles during the short and almost momentary contraction of the ventricles, for of course the valves prevent any blood regurgitating back into the auricles during the contraction of the ventricles. The very structure of the auricles points out this their use, and I feel persuaded they are endued with no power of contraction, they form merely a *pouch* (to coin a word) receptacle to the veins for the blood, while the ventricle is in the act of contracting, and of course during such contraction causing a temporary check to the circulation.

In this point of view it may be seen that I attribute both the first and second sounds to the ventricle, and to it alone. But how is this effected? merely by the muscular and elastic power of the ventricle itself. The first sound is caused by the contraction of the ventricle to force the blood onwards, and the second sound by the ventricle (from its elasticity) at once recovering its hollow state, and so again allowing itself to be filled. Let any one take a gut, or a

hollow piece of Indian rubber, or any elastic tube through which water is running, and surround this with the right hand, and suppose a valve to exist to the left, which will prevent the water returning that way by pressure; now squeeze the right hand round the tube, the water is forced to the right; suddenly give over the pressure, a new current supplies the place of the former; and during the action of squeezing the hand over the tube, and then relaxing it, two distinct sounds are heard. It is thus with the ventricle; while it contracts, and again assumes its hollow state, the two sounds are distinctly heard. Indeed this is made even more clear by a person suddenly opening and then shutting his hand, when two sounds are apparent. I may further add, it is during the time the ventricles are filling that the heart has its temporary rest; the ventricle contracting the moment its inside walls are stimulated by the blood, or more properly speaking, it is not stimulated into action until its cavity is completely filled.

I hope you will excuse this hasty communication, and wishing you every success in your undertaking,

I am your humble servant,

G. M. D.

20th April, 1881.

DR. RAMADGE AND ST. JOHN LONG.

To the Editor of the London Medical Gazette.

SIR,

It was with no less pain than astonishment that I read a letter in the Sunday Times, professedly from Dr. Ramadge, in defence of Mr. St. John Long. It is not as an enemy to quackery, or that I believe it so much more likely to flourish under the fostering protection of the learned doctor, whose professional eminence has not as yet, I believe, attained so great a height; still I cannot but most deeply regret that an individual practising medicine under the high and honourable sanction of a degree from Oxford, and the Fellowship of the Royal College of Physicians, could so far forget what was due to the profession, his public station and character, as to degrade his qualifications and prostitute his name in defence of the character and professional pretensions of not only a

notorious quack, but convicted felon. I am far from urging, or even insinuating, that because this man has not received a regular education, and is not within the pale of professional protection, he should therefore be abandoned, and offered up a sacrifice to the injured dignity of the profession. Nor can I for a moment suppose that there is a single individual in the regular practice of medicine who would require any thing so unreasonable as that gross perversion of law, and that unwarrantable stretch of its powers, which would immolate Mr. St. John Long upon the altars of our offended pride and awakened jealousy. The medical gentlemen who appeared upon the prosecution against Mr. Long, may be considered as consisting of two descriptions: the first comprehending those whose services were required to relieve Miss Cashin, in the forlorn and unfortunate condition to which she had been reduced; the second consists of persons like the worthy doctor himself, whose sense of justice and love of humanity prompted them to step forth in vindication of the laws and in defence of the public safety. The distinction, however, between Dr. Ramadge and the latter characters is, that they came forward early, made themselves acquainted with all the facts and circumstances of the case, so far as they could be ascertained, and delivered their opinions at the proper moment—"pendente inquisitione." But the doctor suffers a long period to elapse, and his friend *merely* to escape banishment, before he takes the field or even thinks of marching to his relief. I can see nothing in the doctor's letter, nor in the facts (allowing them to be substantiated) urged in vindication of Mr. Long, that required so long a time for concoction, and still less for their promulgation. But if the worthy doctor felt at first as he seems to have felt at last, why did not he come forward boldly, manfully, and honourably, to declare in open court his opinions and sentiments upon this important question? Was it because Mr. St. John Long, the guest of Mr. Wontner, and Mr. St. John Long, the oracle of Harley-Street, are different persons; or did not the former offer an equal motive with the latter to induce a man of honour and integrity to step in between injured innocence and vindictive oppression; or was it any apprehension of encountering the search-

ing rudeness and scurrility of medico-legal cross-examination? The doctor's favourable opinion and assistance (for we put entirely out of the question the object of bolstering-up a tottering quack by the sanction of the Fellowship of the Royal College of Physicians, and the expectation of equivalent recommendation), to have proved of any use, should have been afforded at the proper time—during the trial: but perhaps the doctor's motto—"sero quam nunquam præstat,"—may have induced him thus late to offer his valuable assistance; still we cannot but remind him, that if he wait till the suspended man be *dead*, there can be but little use in cutting him down. Had Dr. Ramadge, sir, come forward before the trial, and offered his services either as the friend of an injured and oppressed man, or as the vindicator of violated truth and the advocate of law and justice, he would, even though he had failed in establishing a case, have stood in a much more enviable position than, as at present, coming forward the champion of a man convicted, upon the clearest and most satisfactory evidence, of the grossest ignorance, and of the crime of manslaughter.

It would, sir, be a gross prostitution of the pages of your journal to enter upon any defence, or even a formal refutation of the doctor's attack upon the respectability of the profession, and upon some of its leading characters. Suffice it to observe, that the attack upon Mr. Brodie is, to say the least of it, in bad taste; and not only betrays a vindictive sensitiveness of some real or imaginary neglect, but also savours of the rancour usually engendered by preconceived notions of some private wrong. But we would ask Dr. Ramadge, does not Mr. Brodie's professional character stand at least as high as his own; and are not Mr. Brodie's opinions as good authority, and entitled to as much respect, as the dicta of Dr. Ramadge? The doctor, too, should recollect that, as an external ulcer, slough, mortification, or by whatsoever other denomination expressed, the wound in Miss Cashin's back was an object more of Mr. Brodie's department than of Dr. Ramadge's, whose learned inquiries have been so confined and bewildered in the mazes of internal disorder that they have not as yet ventured into the region of external diseases.

From the doctor's observations upon Mr. Vance, we infer that he professes to be his friend; but Mr. V., perhaps, will be ready to exclaim, "from such friends, good Lord, deliver me!" As Mr. Vance supported Mr. Brodie and the evidence for the prosecution, it becomes a necessary preliminary to demolish him; and the doctor accomplishes it in the most tender manner. Thus he does not denounce Mr. Vance an *ignoramus*, nor does he insinuate that he is one of the legal or licensed murderers who infest St. George's Hospital; but merely assumes that, though Mr. Vance is a worthy and skilful individual, that he had no motive for stating any palliative circumstance in behalf of Mr. Long;—that is, that the obligation, the sacred obligation, of an oath, could not induce this "worthy" man to speak the truth—the whole truth, and nothing but the truth.

But farther—"though Mr. Vance's opportunities have been very extensive, and his early professional life most usefully employed for the public weal," yet, having been principally devoted to the care of a certain description of marine amphibians, he cannot be supposed conversant with the delicacy and intricacy which envelop the diseases of females; and hence his "apparent indifference about the safety of hysterical patients!!!" We beg to apprise the worthy doctor that the practitioners in the navy, when in charge of Naval Hospitals on shore, as Mr. Vance has been, enjoy, in one year, much more extensive opportunities of observing female and infantile diseases than fall to the lot of many civil practitioners in a much longer period. But now let us come to the professed object of the doctor's letter, and let us see how far he has succeeded in making out a case.

[Our correspondent next proceeds to examine at length the cases of Miss Cashin and Mrs. Lloyd; but these have already been so fully discussed, and the absurdity of Mr. Long's supporters so fully proved, that we consider it unnecessary to enter upon them again.]

We know not what may be the extent or the respectability of the Doctor's professional acquaintance: although the defence of Mr. Saint John Long would be considered by most persons as offering the means of a tolerably fair estimate, yet rating it upon the very lowest possible scale, how will he reconcile it

with his own character, that he hardly knows an individual capable of forming a correct judgment? We did not give the Doctor credit for mixing in such society. We trust, however, we have too high an opinion of what is due to our own honour and character, to express the least doubt of his veracity. Admitting all this, however, how will the ignorance of some men upon the more abstruse and difficult branches of medicine excuse a culpable ignorance in a practitioner upon the most common points and principles of practice? But let us to the case:—"When his late Majesty was ill, I was sent for several miles out of town to visit a gentleman who conceived himself to be similarly affected to that illustrious monarch. He had the advice of two physicians, attendants on royalty, also that of a university professor of medicine, together with an eminent provincial physician. Though he was attacked, as I discovered, in consequence of a tonic gout, with inflammation occupying the inferior and middle lobes of the right lung, and soon after with extensive effusion into the left cavity of the chest, combined with general dropsy, these I conceived to have arisen in consequence of the early want of skill in auscultatic discrimination of the inflammatory state of the lungs, which, of course, in a great measure prevented the free circulation of blood from the right side of the heart, and gave origin to general venous congestion, followed by aqueous effusion of the exhalant orifices of the arterial system of various parts of the body. Though he suffered in this way, and though the right ventricle of the heart, labouring to overcome the obstructed circulation in the lungs, was almost itself sufficient to afford some clue to the nature of this disease, yet it pleased these learned physicians early to consider his complaint to be spasmodic, or asthmatic." Now the circumstances here detailed so completely correspond with an instance in which we know Dr. Ramadge was called upon, that we shall take upon ourselves to throw a little light upon the parallel. In the first place, he never met any of the physicians previously consulted, and therefore can know nothing of their opinions except what he may have heard from the representations of the nurse, or the idle surmises of some relative, to whose obdurate and positive self-will

we believe the doctor to be principally indebted for the summons he received. We do not profess to know much about the advice of the two attendants on royalty, but we should think, during the King's illness, they could not have devoted much time to the consideration of any other subject. With respect to the university professor of medicine, we believe he saw the patient but once, and then considered him dying, which in effect he did in a very short time after. As to the eminent provincial physician, he did not see the case at all, being so ill that he could not leave his own house, and he prescribed for the patient upon the report of that same relation whose obstinate perseverance put the family to the expense of Dr. Ramadge's attendance under such unpromising, nay, hopeless circumstances. And here, we must put a query or two, however unpalatable, to the worthy doctor. Was not this identical gentleman a physician practising in a country town, thirty or forty miles distant from London? Did Dr. Ramadge receive thirty or five-and-thirty guineas, or thereabouts, for his first visit? Did he receive the note or letter sent to him to beg he would not make the second visit, as it was considered as only leading to unnecessary expense, or had he started on his journey before its arrival? Has he received the other fee? But to the case.

Dr. Ramadge states, "The treatment they pursued was in strict accordance with their ideas of the disease; it was chiefly antispasmodic and stimulant: ether, wine, and opium were prescribed, instead of bleeding, mercury," &c. &c. Now the provincial physician, who was too ill to attend, prescribed, we have good reason to believe, much in active doses; and, we understood, with great temporary, though not permanent, relief to the sufferings of the patient. In this case, therefore, the doctor seems to have given as much only of the history as answered his own purpose, while he suppresses all those circumstances which would enable professional men to judge fairly of his views and statements.

Now, sir, I believe I may take my leave of this defence; but, in doing this, I cannot but regret that any Fellow of the Royal College of Physicians could have stooped so low as to lend the sanction of his name for such

purposes as evidently dictated the selection of this letter from Mr. Long's book for insertion in a newspaper. Mr. Long's object is evidently to raise himself in the scale of society, and, whatever the means, he is reckless of the consequences. But I would say, sir, to Dr. Ramadge, that no exertions of his can raise Mr. Long to a participation in that respectability from which, through this letter, he has unhappily fallen. If they are to be upon an equality, the doctor must descend to the level of Mr. Long. Whether he be decided on going that length, it is not for me to determine. The doctor may gain a little popularity among the infatuated dupes of Mr. Long's craft and subtlety—a kind of ephemeral popularity, which will prove but a sorry equivalent for the sacrifice of professional honour and respectability.

Is it not surprising that the first occasion upon which the doctor has chosen to commit himself to print should have been in defence of so worthless a cause as Mr. Long's? One would have supposed that the thousand dissections of which he boasts, or the twenty thousand pulmonary cases which he has been enabled to see, must have presented to a careful observer something deserving of communication, no less honourable and creditable to himself than interesting to the profession. But either failing to profit from the opportunities which have presented to him, or regardless of the estimation of his professional brethren, he neglects their wants and despises their good opinion. Hence it is; that instead of devoting his leisure moments in communicating whatever presents of an interesting nature in the exercise of his profession, he prefers stultifying his character and degrading his rank and profession by undertaking the voluntary defence of the most worthless cause that ever disgraced the annals of medicine. What, sir, will the Governors of the Infirmary at Greville-Street think of their physician, or how will they act? Will they appoint Mr. St. John Long the consulting superintendent (we had almost said physician) of the establishment, to assist Dr. Ramadge and his colleagues, and to superintend their practice? This would be a much less

* In this our correspondent is mistaken: the Doctor has appeared as an author before.—E. G.

extraordinary proceeding than that a Fellow of the Royal College of Physicians should have publicly declared himself the friend and the advocate of Mr. St. John Long.

CENSOR.

17th April, 1881.

WHAT CONSTITUTES A FIRST-RATE MEDICAL EDUCATION.

To the Editor of the London Medical Gazette.

SIR,

THE Editor of the *Lancet* having proclaimed, in his leading article of the 9th inst. that Mr. Ryan has received a "*first-rate medical and surgical education*," I lament, in common with my fellow students, that he has not communicated the order and extent of this gentleman's studies; an omission, sir, which we are induced more particularly to regret, from the consideration that, in the aforesaid Editor, we behold the future President of the New-Medical College. Naturally desirous, therefore, as all who are now pursuing their studies, with a view to obtain the highest honours of the new institution, must be supposed to be, to discover what the President regards as a first-rate education, I have, in consideration of the anxieties of my confrères in study, taken some pains to find out what the editor has so unaccountably withheld. If my endeavours have not been quite successful, the President will doubtless correct the errors and supply the deficiencies of my statement.

It may not, perhaps, immediately recur to the collection of your readers that Mr. Ryan is an Irishman; but if they have forgotten it, a little attention to the order of his studies, after he quitted the Limerick Apothecary, to whom he was apprentice, will, I think, recal it to their memories, as it did to mine, a little anecdote of a countryman of Mr. Ryan's, who, having occasion to rebuild and enlarge his house, first added another story to it, and then descended progressively from the top downwards, making the basement the last object of his attention. So proceeded Mr. Ryan; for, after quitting Joseph O'Loughlin, the Irish apothecary, he came over to England, and began his

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surgical education by attending the surgeon's practice at the Middlesex Hospital; and when his twelve months of observation there had expired, he attended Mr. Bell's lectures on surgery: and thus prepared for further study, he devoted some time to the lectures and demonstrations of Mr. Joshua Brookes, on anatomy.

I regret that I have not been able to discover what particular reason Mr. Ryan had for this inversion of the usual order of acquiring surgical knowledge; but whatever it might be, as the Editor of the *Lancet* thinks it the "*first-rate*" mode, Mr. Ryan has doubtless communicated to him its peculiar advantages. Now, sir, my fellow students and myself will feel ourselves greatly indebted to the head of the new order of things if he will let us into the secret; and we will also, at the same time, thank him to inform us why Mr. Ryan did not attend any lectures on *materia medica*, chemistry, or the practice of medicine; or why he altogether neglected the physician's practice at the hospital. For this last piece of information, indeed, we shall be greatly obliged to him, as we are desirous of not spending either our time or our money in acquiring information which the President regards as forming no part of a *first-rate medical education*. By inserting these few lines in your journal you will greatly oblige

Your obedient servant,

A MEDICAL STUDENT.

MEDICAL MEMBERS OF PARLIAMENT.

To the Editor of the London Medical Gazette.

SIR,

AT the present moment, when the national representation is the subject of so much discussion, and when it is likely to undergo such great and important changes, it appears rather surprising that the medical profession does not seize the opportunity of claiming a privilege which seems most reasonably due to it, namely, that of being distinctly represented in the House of Commons.

I think it is not too much to say, that there is not any class in the community at all comparable in importance to that

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of medical men, who are so *entirely unrepresented*, I mean in their peculiar and professional interests, as they are. I need not occupy your space in pointing out how amply the church and the law are provided for in this respect. Why, then, should the only remaining learned profession be so differently treated? Moreover, the agricultural interests are especially and most powerfully represented by the county members; and every important branch of commerce and manufactures by the representatives of the towns in which they prevail. As regards the army and navy, it will not be questioned that they have at least their fair share of influence in the government. But medical men have not only no political influence *as such*, but the nature of their occupation tends in a peculiar manner to debar them from the exercise of that which their station and talents would otherwise give them as citizens.

The actual consequences of this state of things are very much what might be expected. Neither the proper interests of the medical profession itself, nor those interests of the public which medical men are more particularly qualified to understand and appreciate—I mean the various branches of medical police, and the advancement of physical science in general—receive any adequate attention from the legislature. The influence of medical men is no where concentrated: it can never, except by the merest accident, preponderate even in a single election. Preponderate, did I say? It is hardly likely that it should even sensibly be felt. The consequence is, that there will hardly sit a single member in the House, whose relation to his constituents will make him an advocate of medical interests; or who will be in any way *bound* to concern himself about them. And when to this fact we add another equally obvious, that hardly any medical men do themselves become members of parliament, we shall perceive how *peculiarly* the influence of our profession is excluded from the legislature.

Surely this is unfair towards so numerous, talented, and honourable a class of citizens. As surely is it injurious to the public, by depriving the national council of the assistance of those who are best qualified to superintend an important department of legislation.

Such being the evil, the remedy does not appear difficult. The proposed reduction in the numbers of the House of Commons might be lessened, by giving a franchise to the members of the several recognised medical bodies, that is, the several Colleges of Physicians and Surgeons, so that eight or ten members (not, perhaps, necessarily themselves professional men) might be returned by them to parliament. There would be nothing, I think, in this, that would not be strictly analogous to the existing privileges of the English Universities, which is a sufficient precedent for bestowing the elective franchise on learned corporate bodies.

Trusting that these imperfect remarks, (should you honour them with a place in your journal) may assist in drawing the attention of greater men to this interesting subject, I am, &c.

ISCANUS.

ANALYSES & NOTICES OF BOOKS.

"L'Auteur se tne à allonger ce que le lecteur se tue à abrégé."—D'ALEMBERT.

Treatise on the Excision of Diseased Joints. By JAMES SYME, F.R.S.E. Surgeon of the Edinburgh Surgical Hospital, Lecturer on Surgery, &c. 8vo. pp. 164, 7s. 6d.

WE believe it was Mr. White, of Manchester, who first proposed the removal of articular portions of carious bones, as a substitute for the amputation of the limb above the diseased joint—a device which bears the stamp of true genius, and which, had it but fair play—backed as it is by the success of Park, of Liverpool; MM. Moreau, father and son, M. Roux, and M. Champion, in France; and Mr. Syme, in Edinburgh—would signalize a new epoch in the annals of surgery. But prejudice has been strong against it, both here and in France—prejudice, too, which not even the lapse of twenty years of pretty successful practice of the method proposed has been able in any adequate degree to remove. Not only has its general introduction been opposed, but it is lamentable to add that almost every inquiry into its merits has been discountenanced.

Excision is certainly not an operation for which we are at all indebted to foreigners: it is purely a British plan; yet, perhaps, it has been as much encouraged among foreigners as amongst ourselves—that is to say, it has floated with difficulty above the tide of oblivion, both abroad and at home. Here, whatever credit it has obtained, is mainly owing to the activity and success with which Mr. Syme has practised it on all suitable occasions.

It is known that M. Roux, who has been long since distinguished for his exertions in favour of the plan of excision, gave up at an early period all hope of its successful application to the joints of the lower extremities, and especially to that of the knee; for it here produced too much injury, he thought, and there were too many accidents to dread. Once only did this great operator perform excision of the knee, and that was against his own opinion, but at the express desire of the patient, who expired in nineteen days. "Even," says he, "when the operation is performed without the sacrifice of life, the preservation of such a limb will probably be more inconvenient in standing or walking than the timber leg used after amputation."

We were curious, the moment the present little volume fell into our hands, to ascertain how far Mr. Syme has been able to surmount the *crux*; and we turned at once to his seventh chapter, which treats expressly of excision of the knee-joint: in it we found some particulars, with which we hasten to acquaint our readers.

So early, it appears, as the year 1781, Mr. Park, of Liverpool, "cut out the patella, together with the articulating extremities of the femur and tibia, and in the case of Hector M'Caghen, aged 33, on account of caries of ten years' standing. He made a crucial incision on the fore part of the knee, and found no difficulty in sawing off the ends of the bones. The patient made a tedious recovery, having repeated attacks of inflammation, and also sustaining an injury of the limb by falling when just beginning to use it, about six months after the operation; but at length, at the end of a year, was dismissed, and subsequently, as Mr. Park expresses it, 'got a sound limb, and went to sea.' The following extracts are important:—"To the history of Hector M'Caghen

I have now to add, that he afterwards made several voyages to sea, in which he was able to go aloft with considerable agility, and to perform all the duties of a seaman; that he was twice shipwrecked, and suffered great hardships without feeling any farther complaint in that limb; but was at last unfortunately drowned by the oversetting of a flat in the river Mersey. . . . On the whole, from what I have now seen of this man's limb, I do not hesitate to declare, that it appears to me so much more valuable than any artificial one, that, was I in his situation, I should infinitely prefer the former, at the price which he has obtained it.' Mr. Park afterwards operated upon another man, aged 38, who had laboured under disease of the knee for three years; but he died of exhaustion about four months after the operation, which seems to have disheartened Mr. Park from making any further attempts to preserve limbs by cutting out the joints. In Great Britain no additional cases of excision of the knee have been put upon record previously to those which I am about to relate. In France and Germany there have been one or two attempts of the kind, and a few years ago Mr. Cramp-ton, of Dublin, tried the operation in two cases. The subjects of both were young women, and the disease white swelling. In one, no firm union took place, and the patient died three years and a half after the operation, exhausted by the discharge and repeated attacks of erysipelatous inflammation. The other made a good recovery, so that in 'about six months after the operation, the femur and tibia were consolidated by a firm bony union, and the woman, though timid beyond all example, began to lay her foot gently to the ground, supporting the weight of her body, however, on crutches. She now went to the country, and in the month of October 1824, fourteen months after the operation, I received a letter from my friend and pupil Mr. Rynd, of which the following is an extract:—'Your old patient, Anne Lynch, *walked* from Kilkcork to Johnston House, a distance of nearly five miles, to see me this morning. She is in excellent health, and the limb is perfectly firm, though bowed outwards.' Anne Lynch has been frequently in Dublin since that period, and has presented herself for examination at most of the hospitals.

She is now in town; and I have this day, November 3, 1826, examined the limb, and find that the femur and tibia are firmly consolidated; the leg and thigh are not in the slightest degree wasted, but the limb is considerably bowed outwards. She wears a shoe with a cork sole four inches thick, and, to use her own expression, 'is able to stand or walk the length of a day'."

It is Mr. Syme's opinion that most of the objections hitherto made to the performance of the knee-joint operation have been more imaginary than real: upon a closer view, he says, though they do not altogether vanish, they certainly appear of less force.

"Thus the operation requires comparatively small superficial incisions, and can be accomplished much more quickly and easily than excision of the elbow-joint. It certainly must be regarded as more dangerous than amputation, when the patient is very weak or exhausted by previous disease; but if he possesses moderate strength, I think it cannot be maintained, either on the general principles already stated, or from the result of experience, that the risk attending it is more than what proceeds from removing the limb. The recovery was certainly very tedious in Mr. Park's case, but there were particular circumstances which in some measure account for this; and the few patients who have since then undergone the operation, recovered in a shorter time. It ought here to be recollected, too, that though recovery from amputation of the thigh is usually completed in three or four weeks, it is generally *at least as many months* before the patient can rest the weight of his body on the face of the stump, so as to use it in standing or walking. As to the utility of the limb, we find that it can be employed freely in progressive motion, and all the patients have declared that they considered themselves extremely fortunate in having preserved their legs such as they were. The advantages of the operation which may be contended for, are, that it preserves the natural support of the body afforded by the bones and joints of the tarsus, metatarsus, and toes, which, by diffusing the effects of force applied at the extremity of the limb, protects both it and the other parts of the body from concussion; and that it obviates the necessity of resting the whole of the patient's weight on the

face of a stump, which must be done when amputation is performed above the knee. On the whole, I am not inclined to condemn the excision of the knee-joint altogether; and at the same time cannot venture to recommend it, without more facts to ascertain the correctness of our hypothetical opinions on the subject."

Only two cases of excision of the knee-joint are given by Mr. Syme. We may mention that we have here also two cases of excision of the shoulder-joint, and two of partial amputation of the foot. But the cases of excision of the elbow amount in number to fourteen: and it is here that the great advantage, the practicability, and the success of the plan, are put beyond all doubt. This is as it should be. The arm, destined in man for so many noble and important purposes, and so useful even when it has sustained serious injury, or is more or less deformed, provided only the hand remain entire, is of all the members perhaps that which most highly merits to have every exertion employed to save it. We shall now extract from the treatise before us one short case. In subsequent numbers of our journal it may happen that we shall present our readers with some of the other striking ones which the volume contains; but at present we regret that our limits will not allow us to devote more space to the subject.

"Janet Burns, aged 25, from Carnwath, was admitted into the Surgical Hospital on the 8th of May, 1825, for caries of the elbow-joint, which had existed for twelve months, and would have been considered amply sufficient to justify amputation. The operation was performed in the manner that has been described, and the after-treatment did not differ in any respect that requires to be mentioned. She was harassed by a slight degree of chronic bronchitis, which delayed her recovery, and rendered the complete and permanent re-establishment of her health somewhat doubtful.

"She returned to the hospital last June, on account of a ganglionic affection of her knee, and had then regained the use of her elbow-joint so completely, that, when her hands were used in any ordinary employment, such as adjusting her dress, sewing, &c. no one would have supposed that it was in any respect defective; and, when she

was so engaged, I have repeatedly puzzled strangers, by desiring them to fix on the arm which had been the subject of operation."

We may add, that many of the cases contained in the volume have already appeared in the pages of the *Edinburgh Medical and Surgical Journal*; and some of them have been noticed by ourselves. But the author has deserved well of the profession for thus collecting them together, and digesting them into a form which cannot but be highly acceptable to every operating surgeon in the kingdom.

NEW PREPARATION OF OPIUM.

Muriate of Morphia.

THE following method of preparing muriate of morphia has been adopted by Dr. William Gregory, of Edinburgh.

Opium is cut in small pieces, and completely exhausted by cold water, or water at 90° F. The aqueous infusion is concentrated till it occupies a small bulk, and precipitated by a slight excess of ammonia. The precipitate is collected on a filter, washed moderately with cold water, and dried at a temperature below 212°. When dry, it is reduced to powder, and rubbed up with cold water. Diluted muriatic acid is now added by degrees. The first portions are speedily neutralized, but fresh acid is added until a slight but permanent excess is present. This dissolves both the morphia and narcotine, forming a dark-brown solution, which must be filtered, to separate it from some very dark matter which is left undissolved. The filtered solution is now evaporated to nearly the consistence of syrup, and on cooling forms a brown mass of crystals moistened with a very dark liquid. The whole mass is now subjected to strong pressure between folds of bibulous paper, which absorbs the liquid containing the muriate of narcotine and colouring matter, and leaves the muriate of morphia tolerably pure, although still of a brownish colour. A second solution, crystallization, and expression, yields the salt nearly white and free from narcotine. By a third crystallization the muriate of morphia

may be obtained in radiated bunches of silky crystals of snowy whiteness. These crystals, when dried by a moderate heat, become quite opaque. They are soluble to almost any extent in boiling water. Their solution has a very bitter taste, and yields, when supersaturated by ammonia, a highly crystalline precipitate of morphia. A similarly pure solution of narcotine in muriatic acid gives a curdy precipitate, not at all crystalline.

The quantity of muriate of morphia obtained from opium by the above process, varies according to the quality of the drug. From a very pure specimen of Mr. Young's British opium, I obtained 13.5 per cent. of nearly pure salt, in one of the first experiments I made. I have no doubt there was here considerable loss. On the other hand, from an equally pure specimen of East India opium, I obtained only 4.5 per cent. Here also I believe a good deal was lost*. The average amount I have hitherto obtained from good Turkey opium, is from 10 to 11 per cent., quite pure.

Effects of Muriate of Morphia.

Dr. Christison, in a letter to Dr. Gregory, gives the following account of some experiments made with the salt prepared as above.

I have administered the solution of muriate of morphia in upwards of thirty cases, and in several of them for ten or fifteen days continuously. The dose has been, with very few exceptions, twenty-five drops of the solution, corresponding with a quarter of a grain of the muriate. In every instance sleep supervened in the course of an hour, and continued between four and seven hours. In by far the greater number it was profound and calm, without dreaming; in three instances there was much dreaming, but always of a pleasant nature, and followed by the refreshment of natural sleep.

The after-effects of this preparation have appeared to me invariably trifling. In scarcely a single instance has its employment been followed by dry brown

* According to my experiments, and those also of Dr. Christison, East India opium appears to contain little morphia, but abundance of narcotine. The very dark colour of this opium coincides with an observation I have frequently had occasion to make, that narcotine and the resinoid colouring matter of opium adhere very strongly together, and are often found associated.

tongue, sickness, or headache, which are so frequently induced by opium even when it produces refreshing sleep. In one case only, I remarked a dry brown streak along the centre of the tongue in a gentleman who took it for the sixth evening; but in this, as in other instances of the same kind, a habitual sickness after meals in the morning was lessened rather than increased; and although there was previously to the use of the muriate of morphia frequent hemicrania, he never had headache of any kind after using it. In short, the taking of this remedy appears, so far as my experience hitherto goes, entirely free of the bad effects produced by opium on the stomach, after its soporific influence ceases.

"I have not as yet had any opportunity of trying its effects in a case where opium acted deleteriously; but on several occasions I have compared the effects of the muriate of morphia on the one hand, and of solid opium, laudanum, Battley's sedative liquor, and a new East India laudanum of great strength, on the other. To some patients I have given the salt of morphia, after they had been in the practice of taking laudanum for weeks continuously to the amount of forty or fifty minims. In all, twenty-five drops of the solution produced equally sound sleep; the greater number declared they slept more uninterruptedly, and awoke more refreshed; and a few, who had suffered sickness and headache in the morning when they took laudanum, were free from these inconveniences after taking the morphia. To other patients who had taken laudanum, or Battley's sedative liquor, for some time, with apparently good effect, I first gave the muriate of morphia for two evenings, and then administered again the preparation of opium previously taken. In every instance of the kind but one, I was requested by the patient to resume the muriate of morphia, which I was assured gave him a sounder sleep, and left him in a state of greater general comfort in the morning. One patient, a female, first preferred the muriate of morphia, but afterwards requested to resume the use of laudanum, which she said made her sleep better. But she was so capricious in many other respects, that no importance can be attached to this apparent exception.

I think I have also remarked two other circumstances in the action of the muriate of morphia, which, if they shall be confirmed by future experience, cannot fail to give this preparation a great advantage over the other preparations of opium. The first is, that while its soporific effects appear, on the one hand, more complete for some hours after its administration, so, on the other hand, they seem to pass off more suddenly and completely than those of laudanum and Battley's solution. Every one who has extensively observed the effects of the last-mentioned preparations, must have remarked, that in many instances the patient continues torpid and drowsy during the whole forenoon, after having slept even soundly the previous night. This I have never had occasion to remark in any of my patients who had taken the muriate of morphia. The second circumstance, if my observations are correct, is even more important; and it is, that the muriate of morphia, after being taken many days in succession, still continues to act with equal activity without being increased in quantity. Some of my patients continued to take it for fifteen days every evening without intermission, in the dose of twenty-five drops; and to the last they slept the same number of hours, and as soundly as at first. That their repose was not owing to natural sleep was proved in some by subsequently intermitting the morphia; for then the patient passed a sleepless night.

The muriate of morphia has appeared to me to possess the same inconvenience as the other preparations of opium in constipating the bowels.

From my whole observations, I have no difficulty in coming to the conclusion, that the muriate of morphia is a much superior preparation of opium to any other in which the morphia is not reduced to the state of a simple pure salt.

The solution employed by Dr. Christison was as follows.

Rx Muriatis Morphiæ, gr. x. Aq. calid.
Min. 1000. Solve.

Of this solution, one hundred minims contain one grain, and twenty-five minims one-fourth of a grain. A more convenient formula, and nearly of the same strength, is five grains of salt to

one ounce of water. Such a solution, I am convinced, might be made as cheap as laudanum, while it is more than equal to laudanum in anodyne power*.

MEDICAL GAZETTE.

Saturday, April 30, 1831.

"*Licet omnibus, licet etiam mihi, dignitatem Artis Medicæ tueri; potestas modo veniendi in publicum sit, dicendi periculum non recuso.*"—CICERO.

THE LATE MR. ABERNETHY.

Our last number had just been put to press when we heard of the death of this eminent and much-to-be-lamented surgeon. He died at his seat at Enfield, on Wednesday, the 20th, between the hours of four and five in the afternoon. The event, we must confess, took us rather by surprise; though from the circumstance of his having retired some time since from business and the bustle of the town, on the plea of bodily infirmity and declining health, we should not have been quite so ill prepared for the intelligence.

Thus has one of the brightest stars of British surgery vanished from our horizon: we have lost the lineal successor—the immediate link that connected us with the times of Pott and John Hunter—the Haller of England—one of the ablest physiologists of our day!

We may be pardoned for applying to him the pathetic lines which were originally appropriated to one of his predecessors:—

"Cold is that hand which nature's paths displayed;

Dead are those lips on which instruction hung;
Fixed are those eyes, enlivening all he said;

For ever mute is that persuasive tongue!"

It was the boast of Mr. Pott, the year

before he died, that he had served, man and boy, in St. Bartholomew's Hospital, for half a century. Mr. Abernethy could lay claim to the same distinction; he was literally worn out in the service. He had not attained to "the days of the years of man's life," neither had he reached the ordinary average, which, it is remarkable, is generally allotted to eminent men in our profession—to anatomists more especially: he was only in his sixty-seventh year when he sunk under the disease—an asthmatic affection (complicated, we suspect, with disease of the heart*), which for several years, but particularly for the last two, has been bringing him down gradually to the grave. Nothing, we believe, worthy of any special notice occurred during the latter stages of his complaint—it was attended with general dropsy, and proceeded steadily to the extinction of the vital powers: one circumstance, however, connected with the severe attack which he suffered two years ago—that paroxysm which broke him up, and forced him to part for ever from his beloved chair—may be here related.

We have many illustrations on record of men of original and powerful minds displaying the influence of their ruling passion when almost in the mortal struggle. Haller is said to have felt his own pulse, and marked some phenomena attending the last beats of fluttering existence; and John Hunter, amid the anguish of angina pectoris, scrutinized his symptoms with the eye of a pathologist. With Abernethy the lecture-room is well known to have been the scene of his chief delight; and in an attack which threatened him with suffocation, after some hours of struggling for his life, it is said the first words he uttered were, "egad, I think I shall still be able to lecture this afternoon!"

* Edinburgh Med. and Surg. Jour. for April.

* The body, we understand, has not been opened.

Full half a century has elapsed* since the walls of St. Bartholomew's first received John Abernethy as a student: the progress which he made in his studies was exemplary: he had scarcely attained his twenty-second year when he became assistant-surgeon to the hospital, and succeeded Mr. Pott as lecturer in anatomy and surgery.

Nor was this any trivial period for earning a character: it was no vulgar time for becoming distinguished. William Hunter had just gone off the scene, after having gained immortal reputation both as a teacher and practitioner; and John was still in the full vigour of his powers and his fame. Yet was not the young Abernethy undistinguished: already had he given birth to anticipations the most sanguine. He could not have been above thirty, when we find Mr. Earle (afterwards Sir James) speaking of him as one "who, whether he was considered as a practitioner of surgery, a teacher of anatomy, or a philosopher, deserved to be mentioned in the most encomiastic terms;" and the very year after (1797) we find him, along with Sir James himself, honoured with a niche in the temple of fame—

"— Call Earle useful, Abernethy deep"—

says the author of the *Pursuits of Literature*—the learned unknown—who thus, too, qualifies him in a note:—"John Abernethy, Esq. F.R.S. a young surgeon, of an accurate and philosophical spirit of investigation, from whose genius and labours I am led to think the medical art and natural philosophy may hereafter receive very great accessions."

Thus early did he give promise of that fullness and maturity of merit, which he afterwards so conspicuously displayed.

He began to teach his profession, it

may be observed, at a time when others, are usually employed in learning it. But this was not all: he soon after presented the world with some of those essays on various subjects connected with his profession, which placed him in the very first rank of physiologists, as a man gifted with superior powers of observation, and with extraordinary clearness and originality of thought.

It was in one of those essays that he first announced his plan of putting a ligature on the external iliac artery; thus shewing the practicability of effecting what was hitherto deemed impossible; and thus making good his title to be esteemed as a benefactor, and preserver of his species, by saving the lives of numbers who must but for him have inevitably perished. The operation is classed by M. Roux along with that of John Hunter, for popliteal aneurism, and both set down as marking out a brilliant epoch in the history of the progress of surgery. It procured Mr. Abernethy, in fact, a European reputation. Yet it may with much propriety be doubted whether the circumstances attendant upon this case entitle the subject of our present article to the honours of a philosophical inventor. The great operations of tying the external iliac, and of securing the carotid artery—which latter also he was the first, at least in this country, to perform—were the offspring of emergencies. They were, however, the applications to practice of preconceived theoretical knowledge; and it was this turn in Mr. Abernethy's mind which made him so constantly refer to Hunter. The peculiar character, in fact, of his professional pursuits, was the application of physiology to the improvement of practical surgery.

In process of time he succeeded Sir James Earle as surgeon to St. Bartholomew's; and it is universally known to how high a pitch of public estimation that establishment arrived, both as an

* Mr. Abernethy, we are informed, was sprung from Irish parents, but born in London in the year 1765. He was grandson of the celebrated presbyterian preacher, the author of the "Sermons on the Attributes."

hospital and a medical school, while his name was connected with it. We cannot enter into any very minute particulars in this rapid sketch, but we may allude to one circumstance, relating to St. Bartholomew's Hospital, at the period in question—the surprising paucity of operations in that establishment during Mr. Abernethy's time. We say emphatically, during Mr. Abernethy's time; for to him has the circumstance been by common consent attributed. Of the fact itself there can be no doubt; it has been frequently announced in the most public manner; by one of the highest authorities at present connected with the hospital; that there are not nearly so many operations now performed in St. Bartholomew's as there were five-and-twenty years ago.

In this respect Mr. Abernethy will strongly remind us of Haller and John Hunter—the gods of his own idolatry; and, perhaps, were we appointed to assign him a suitable rank among the eminent of his profession, we should place him in somewhat of an intermediate position between those two greatest physiologists that the world has ever seen. Haller, indeed, was a physician, but he was probably the most surgical of physicians; while Abernethy was, perhaps, the most medical of surgeons. And John Hunter, we should say, was more of the pure surgeon than either. All were sensitively cautious, averse to the performance of operations, except in the very last resort; and in all, it may be attributed, perhaps, to their possessing, in an eminent degree, those “compunctious visitings of nature” which are so beautifully becoming to the great and benevolent mind.

Haller had almost a monastic abhorrence of blood. John Hunter held that a surgeon “should never approach his victim but with humiliation:” an operation, he considered, as “a reflection

upon the healing art; the habitual operator, as a savage in arms, who performs by violence what a civilized person would accomplish by stratagem.” Mr. Abernethy is known to have entertained much the same sentiments: he specially praises John Hunter for being averse to operations, and imputes it to him as one of the excellencies of his nature. Nor was his own averseness a factitious feature in his character. We remember on one occasion, not many years ago, when Mr. Abernethy had to operate on a patient for stone, the requisite incisions were made by him with all due skill and adroitness; but the business was far from being completed when his stock of *sang froid* manifestly failed him: he tried in vain to grasp the stone; he could not find it; he became embarrassed; he hesitated; and at last anxiously transferred the forceps into the hands of his assistant, plainly shewing, at least, how little of the studied apathy of the stoic there was about him. He never operated for the stone again.

And here we cannot help reflecting how much for the worse opinions seem to have changed of late—indeed very lately—with regard to the duties of a practical surgeon. Operations are beginning once more to be looked to as the test of pre-eminent ability: and a surgeon, if he go not through his work with something like what Gibbon calls “the savage coolness of an anatomist”—with more regard to scientific and dexterous performance, even than to the life of his patient—is but too frequently supposed to be possessed of only an inferior degree of merit. But we have just cited three of the greatest authorities of latter times: and it should never be overlooked that the proudest boast of modern surgery is, that of diminishing the number of its operations.

Mr. Abernethy derived much cele-

brity from his lectures: he was certainly in his day the most famous teacher in London. And it could scarcely be otherwise. He began early, and in a good school; he was a fluent and energetic speaker, and having a clear and accurate conception of what he taught, he knew well how to place in a distinct and intelligible point of view even the most abstruse subjects of discussion. The spirit which he threw into his delivery, together with his felicitous and striking powers of illustration, gave also a peculiar charm to his manner.

But in what terms should we notice that native and rich humour which not only carried him to the bosoms of his pupils, but rendered him so marked a favourite with the public? Perhaps since the days of Dr. Radcliffe there has not been a medical practitioner so popular, and so much run after, both for his acknowledged skill and on account of his eccentric peculiarities. But how contradictory are the reports which are current on this subject! Many of his patients, no doubt, have come away from him affronted, and with their self-importance seriously disturbed; yet how many have still been found anxious once more to try the fate of their reception! What were these, however, to the numbers who visited him and took their leave impressed ever after with the strongest sense of his humanity, his superior talent, and his perfect good humour? Liberality, in fact, and kindness, were among the most prominent features of his character; and his humour, though sometimes remarkable for its causticity, was never disfigured by that coarseness which belongs to the innumerable anecdotes falsely attributed to him, and many of which are more remarkable for their brutality than their wit. We could readily swell our little narrative into a book full of his facetiae

and humorous ebullitions, but that the solemnity of the present occasion forbids even an approach to the levity of amusement.

As we have just been speaking of his success with the public as a practitioner, it is but right to add, that those who have never seen Mr. Abernethy till of late years, can scarcely form any adequate idea of him in the brighter period of his life. Had this great man condescended to adopt the arts too often practised for the purpose of getting money, what wealth might he not have accumulated! And having alluded to the accumulation of wealth, we are naturally led to another reflection on a subject somewhat metaphorically akin to this. Had the industry of Abernethy but equalled his genius, what treasures in science might he not have amassed! We have sometimes heard it laid to his charge, that his lectures in anatomy were rather too superficial—that he trusted on many occasions rather to the resources of his memory or his imagination, than to impressions derived from recent study and research;—and that, as an author, Mr. Abernethy certainly might have done more. Both these imputations, however, are perhaps more visionary than real. If there were any semblance of truth about the first, the very imperfection imputed will be found to be not without a reasonable defence. The omissions in the matter of anatomical minutiae were in many instances made advisedly; the lecturer probably thinking that such information was most properly to be acquired in the practical business of the dissecting-room, while the time thus saved would be most profitably employed in building up a sound surgical superstructure. And in laying down principles, what teacher ever surpassed the subject of our memoir? Then as to the deficiencies of his authorship, it

is true that what he has published is not voluminous, but it is the concentrated essence of what might have been voluminous—the pith of the profound and extensive meditation of his earlier life. For our parts, we suspect had Mr. Abernethy had more time, and we are willing to add, more industry—consistently with his expressed principles—he might in subsequent editions have materially reduced the volume of his works. The motto, it may be mentioned, which he has adopted for one of his latest publications, is strongly indicative of his feeling on the subject:—"The increase of knowledge," says he, "is not like that of other things, for it is often accompanied by a considerable diminution of its bulk."

To us it is rather a pleasing subject of recollection, that the last paper Mr. Abernethy wrote was specially designed for the pages of this journal; and though given to the public anonymously, yet as the author even at the time expressed himself indifferent whether his name were known or not, there can now be little objection to divulge the fact—that the article signed "a Professional Friend," in our 5th volume, in defence of the College of Surgeons, was written by him. However imperfect his defence or explanation may be on certain points—for instance, on that of the self-election of the members of Council—it cannot be denied but that it is luminous and candid, so far as it goes. The remarks on the supply of the anatomical schools, towards the conclusion—identify the writer with the gentleman who gave evidence before the parliamentary committee, April 28, 1828—and by these coincidences was Mr. Abernethy speedily detected by some who were bitterly jealous of his advocacy.

One anecdote, and we have done. Mr. Abernethy's memory was wonder-

ful: no one knew when or how he formed his acquaintance with Shakespeare, yet he had the writings of the immortal bard almost by heart, and used very frequently to quote them. He was fond of the theatre, too, and would himself sometimes try his skill in the histrionic art: on one of these occasions, when in company with Mrs. Abington, he burst forth in the language of Richard, and the celebrated actress whom we have just mentioned declared that she had never heard any one whose manner and delivery so much reminded her of Garrick.

Much of the intellect and humour which belonged to him were displayed in his countenance. The best likeness of him is that painted by Lawrence, from which an excellent engraving has been made;—it represents him in his favourite occupation of lecturing. Another, by Turner, which shews him at a later period, is also possessed of merit; it has been copied in mezzotinto. There is also a small print which exhibits him standing with his hands in his pockets; the general expression in this design is very happy, though the individual portions of the picture are less felicitous.

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MEDICAL JURISPRUDENCE—
CHILD MURDER.

To the medical jurist, as well as to the profession generally, it must be matter of much gratification to observe the superior degree of attention which is now paid to subjects connected with this science. Scarcely a day passes in which there is not something occurring to mark its paramount importance, and to direct public notice to the aid which may be afforded to the investigation of many intricate facts by the study of medicine. In criminal cases—infanticide, for in-

stance—the light which may thus be thrown on the circumstances of the commission of the crime, is invaluable. Both humanity and the ends of justice may be satisfied by more strict inquiries founded on the principles of legal medicine: and it gives us much pleasure to perceive that the profession of the bar are becoming every day more and more interested in, and, of course, more intimately acquainted, with the pursuit. The following charge, which has reached us *exclusively*, from a much-valued correspondent, will serve to illustrate what we mean. The production taken by itself, we admit, has but little claim to our notice, on the score of the sagacity or depth which it displays: but emanating, as it does, from a nobleman not particularly distinguished for his patient and pains-taking spirit of inquiry, we think it entitled to some share of consideration; not only as it is *His Lordship's*, but as it affords an example of how much good may be done by even a superficial investigation of circumstances connected with medico-legal questions.

NOTTINGHAMSHIRE LENT ASSIZES.

Lord Lyndhurst's remarks on the case of Maria Warrington indicted for Child Murder.

In his charge to the Grand Jury, his Lordship observed generally upon the enormity of the crime; and from its nature, the difficulty of proving it. He then proceeded to state the provisions of the act of James I.; the material alterations made in it in 1803 or 1804; and the further modification of it during the late sovereign's reign; by virtue of which last modification, if the Grand Jury should find the bill for the capital offence, then the Petit Jury could find the party guilty of the misdemeanor only; but if they should be of opinion that the capital charge could not be proved, then he would advise them to throw out that bill, and substitute one for the lesser offence.

There were two points to which his Lordship requested the Grand Jury

would direct their particular attention; namely, the declarations made by the prisoner, and the fact of the child having been born alive.

Firstly: then the declarations, or supposed declarations, of the prisoner, must be looked at with a cautious eye, and with regard to the strict rule of law; and for the guidance of the Grand Jury, he would tell them that no declaration made by the party accused, if made in consequence of hopes held out, is allowed to be produced against her; and any thing said, conveying to the party accused any intimation or idea, advantageous to her in the result, amounts to a total rejection of such declarations in evidence; and this is not confined to the party, or presence of the party; all subsequent declarations, (except admonition be first given,) must also be rejected.

Now I come, said his Lordship, to the second point, to which your very particular attention should be paid, namely, the fact of the child having been born alive. We are much indebted to the exertions of the justly-celebrated Dr. William Hunter for leading us out of the great error into which nearly all the medical faculty had fallen on this subject. The prevailing opinion was, that if the lungs would float in water, it was to be considered conclusive that the child was born alive; but Dr. Hunter's tract has proved the fallacy of such a position; and courts and juries are not justified in finding verdicts upon such evidence alone. In this case, the evidence which will be placed before you will be entirely of that nature; and I think you will not be safe in coming to a conclusion unfavourable to the prisoner from such evidence. There will also be evidence laid before you of marks of violence. On this point, also, you will be greatly relieved by considering Dr. Hunter's sentiments; and the medical faculty now generally subscribe to the doctrine which he has laid down. The marks which are said to have been inflicted in this case, upon reading the depositions, will not be found to be inconsistent with the description which he has given of the convulsive grasp of the woman in the moment of delivering herself, and of the violent seizure she makes of the object of her then sufferings; independent of which, you will consider the circumstances of her being entirely alone, without medical assistance, and

also the great sense of shame attendant upon persons in her situation. These are all matters entirely for your consideration, and I must leave them in your hands.

We have only to add, that the prisoner, on her trial, was acquitted of the capital crime, but found guilty of the misdemeanor of concealment.

SOCIETY OF APOTHECARIES

versus RYAN.

We were led into error last week, in stating that a new trial had been granted in this case. We have since then received a verbatim copy of the proceedings, by which it will be seen that all that had been done was obtaining a rule to shew cause why a new trial should not be granted. This point will be argued before the Judges, on the ground upon which the rule has been obtained,—viz. whether or not the evidence of Mr. Watson ought to have been received?

We this week are enabled to give the arguments of the Defendant's Counsel in applying for the rule, and the opinions of the Judges on the case, taken from the notes of the short-hand writer; and we recommend them to the attention of our readers, as containing some curious matter.—See p. 158.

INHALATION OF IODINE.

To the Editor of the London Medical Gazette.

SIR,

NOTWITHSTANDING my contempt for unfounded aspersions and illiberal remarks, I wish to avail myself of a page in your journal (claiming the insertion as a right,) in order to obey the call of the profession for the exact formula of the iodine mixture, which I have been led to prefer, as a principal remedy in my method of treatment by inhalation.

Let me at the same time repel the insinuation of a design on my part to use mystery or concealment towards my professional brethren. I appeal with confidence to my former writings in proof of my habitual candour, and unreserved freedom of communication.

Notwithstanding that upon this occasion I explained myself rather in general than particular terms, for the reasons stated in my publication*, I have been most diligent in answering fully the numerous inquiries addressed to me, as well by letter as verbally; and I rest, therefore, perfectly satisfied with the "mens conscia recti."

The following is the formula which I find most reason to approve:—

R Iodinæ, gr. viij.
Potassæ Hydriodat. gr. v.
Alcoholis, ℥ss.
Aquæ distillat. ℥vss. M. fiat mistura.

The above is the smallest proportion of hydriodate necessary for the solution of the prescribed portion of iodine; and, on the other hand, if more were employed, it would engage too much of the iodine, and thus the efficient agent would not exist *free* in sufficient quantity to be remedial.

As this delicate agent, iodine, is very volatile, I find it advantageous to divide the dose for each inhalation, whatever it may be, into two portions, and recommend two-thirds to be used for the first half of the time (15 or 20 minutes); the other third for the remaining period.

In commencing with the remedy, I never think it necessary to prescribe less than a drachm as the total quantity for each inhalation, and rarely find it expedient to go beyond six drachms. Almost invariably I use, with each inhalation, from twenty to thirty-five minims of the saturated tincture of conium, which has the effect of softening the action of the iodine, without impairing its useful properties, in addition to its distinct power of allaying irritation.

I shall avoid, in this place, entering into an examination of the criticisms which have been passed on the general

* I may here further observe, that I should not have been correct in prescribing a formula in my book, because I had not, at that time, so fully satisfied myself as I have now done, in regard to the most favourable proportions of the ingredients.

merits of my little work. I have the satisfaction of being confirmed, by my further experience, in the high advantages of the use of inhalations, as an auxiliary treatment, in pulmonary consumption, and in several morbid states of the air-passages. Much professional scepticism appears to be entertained concerning the possibility of affording any material relief in cases of consumption:—this I must condemn.

It is, I conceive, no less adverse to the interests of science than of humanity, to consider any disease as absolutely incurable. Our art is, doubtless, bounded by certain limits, but let not these limits be still further circumscribed by our own supineness or prejudices.

I am, sir,
Your obedient servant,
CHARLES SCUDAMORE.

Wimpole-Street, April 26, 1831.

WESTMINSTER-HALL,

18th April, 1831.

In the King's Bench.

SOCIETY OF APOTHECARIES v. RYAN.

Motion for a New Trial.

Mr. Platt.—If your lordships please, in a case in which the Master and Wardens of the Society of Apothecaries are plaintiffs, and Edward John Ryan is the defendant, tried, my Lords, in the county of Kent, before Mr. Baron Bayley, and in which the verdict was for the plaintiffs for one of the penalties sought to be recovered in the action—

Lord Tenterden.—For practising as an apothecary without a license?

Mr. Platt.—Yes, my Lord, for practising as an apothecary without a license. My Lords, it appeared by the evidence—

Lord Tenterden.—What is your motion, Mr. Platt?

Mr. Platt.—My motion is, my Lord, for a new trial; on the ground, first, of a misdirection of the learned judge, and secondly, on the ground of the verdict being against evidence; and the whole controversy in the case was, whether any one of the cases was an apothecary's case, as distinguished from a surgeon's case.

My Lords, the first case was the case of one Hancock, who, being in the last stage of a consumption, sent for the defendant, in

order that he might be relieved: for that purpose he bled him with leeches, he sent him a bottle of medicine, but sent no bill. My Lords, the learned judge, after summing up the case, called the attention of the jury to a charter which was granted to the Master and Governors of the Commonalty of Barbers and Surgeons of London; which charter was granted in the fifth year of Charles the First, and in which there is this clause, my Lords: that "the charter was granted to these (to the Master and Governors), in order to give them supervision over all persons practising surgery within seven miles of London; that every freeman of the city, and duly admitted, may make, prepare, compound, apply, and administer, and use all and singular plaisters, instruments, compositions, medicines, and other medicaments, belonging to the art of surgery, for the better and more speedy recovery of their patients in cases of surgery—that is to say, in the curing of wounds, ulcers, fractures, dislocations, tumors* beside and contrary to nature, and of other external infirmities, as to them shall seem most expedient, any statute notwithstanding."

The jury, my Lords, considered for a considerable time, and brought in this verdict: "My Lord, under the construction of the law which your lordship has offered to the jury, they feel it their duty to return a verdict for the plaintiffs, because there was no external injury in the first case."

Now, my Lords, it was admitted that bleeding, whether the act was done by leeches or otherwise, was the duty of the surgeon.

Lord Tenterden.—Every apothecary in London does bleed.

Mr. Platt.—He may do so; but unless he is a surgeon he has no right to do it. In Hancock's case, the one on which the verdict was given—

Mr. Justice Parks.—It was for that case only?

Mr. Platt.—It was for that case only the verdict was found. Your Lordships will observe, in that case, the particular mode of treatment, the principal cause of cure, if cure ever could have been effected, would have been the bleeding; and we all know well enough that depletion is the first mode you adopt for the purpose of quelling inflammation of any kind, particularly inflammation in the lungs; and that was a case of inflammation of the lungs. But your Lordships will observe in what condition the surgeons† of this town will be placed, if this

* Tumors beside and contrary to nature—as distinguished from tumors arising from natural cause.

† Mr. Platt should rather have said—but your Lordships will observe in what condition the physicians and apothecaries, and the public, of Lon-

new construction is to be given to their practice; because, my Lords, with the greatest submission to your Lordships, I should say that what was the practice of a surgeon in the time of Charles the First may not be the practice of a surgeon at the present day, any more than it was the practice of an apothecary, for there was no one called to shew what the practice of an apothecary was. My position is this—whenever the treatment of a case is principally surgical, then the whole case is surgical, whether medicine is to be administered or not; but when the principal case be medical—when the principal treatment be the exhibition of medicine—and when the lancet is only called in as an assistant to the medical practitioner at the time—then, I say, that case will be within the province of the physician or apothecary.

Mr. Justice Lidddale.—What was this originally—an inflammation of the lungs?

Mr. Platt.—Yes; and the only thing that was done was bleeding.

Mr. Justice Lidddale.—That is a medical case, rather than a surgical case.

Mr. Platt.—Bleeding is the principal means of cure, and therefore I say it was a surgical case.

Mr. Justice Parke.—How can you say a case of consumption is a surgical case?

Mr. Platt.—I say it is a surgical case from the treatment.

Mr. Justice Parke.—So far as bleeding with leeches may be; he does more—he exhibits medicine.

Mr. Platt.—That was merely to quiet the patient; and, poor man, he was quiet enough afterwards. Then, my Lords, there is a second point which I should submit to your Lordships will entitle me to a new trial, if the first will not.

A witness of the name of Watson was called, who stated himself to be a member of the Society of Apothecaries. By the 25th section of the 55 Geo. III, chap. 194, which is the act founding the action, all sums of money arising from the conviction or recovery of penalties for offences committed against the act, are applied, one-half to the informer, and the other half to be disposed of as the Society should think fit. I objected to this witness, my Lords, because it seemed to me that he was, in effect, one of the plaintiffs.

My Lords, there was another objection which I had the honour of submitting to the learned Judge, which was this—that by this act of parliament no statement whatever is

made which could explain what the practice of an apothecary was, except one section, which speaks of the apothecary being bound to make up prescriptions according to the directions of a physician; and that, undoubtedly, was not done here. But, my Lords, we must undoubtedly confess, from the knowledge we have of the practice of an apothecary at the time this act passed, that apothecaries certainly did more than make up prescriptions; and then the act must be construed, I admit, with reference to what then was the practice of an apothecary—to advise, to exhibit medicines according to his own advice;—but inasmuch as the giving advice and the mixing up of medicines constitutes the whole that the apothecary had to do, if they were enabled to do the latter, in exclusion of all the rest of the medical profession, your Lordships will easily conceive that the chemist would be affected by it; and therefore it is that an exception in the 28th section of the act is made in favour of chemists and druggists; and therefore it is said that the act shall not be construed to extend to prejudice, or in any way affect, the trade or business of a chemist and druggist, in the buying, preparing, compounding, dispensing and vending drugs, medicines, and medicinal compounds, wholesale or retail.

Lord Tenterden.—No, he must not advise and prescribe.

Mr. Platt.—There is no provision of that kind.

Lord Tenterden.—Provided the chemist should not give advice.

Mr. Platt.—Now, my Lords, with regard to Hancock, there was not the slightest evidence on the trial to shew that what the defendant did for this man was not done for mere charity.

Lord Tenterden.—But did he prove that it was?—because, you know, if a medical man is called in, we do not assume that what he does he does for charity.

Mr. Platt.—My Lords, I am not aware I can offer any thing farther, in advancement of this case; under these circumstances, I hope your Lordships will grant a rule nisi, to shew cause. The faculty are desirous your Lordships should lay down some rule; at all events, that they should not be prevented curing many ailments which, if your Lordships should confine the rule in the manner the learned Judge did at the trial, it would be impossible for them hereafter to touch.

Their Lordships consulted.

Lord Tenterden.—The practice of the two branches of the profession certainly goes beyond the strict etymology of the name of either of them. Take the name of surgeon, and look at its etymology; it means a person who performs operations with the hand—manual operations. I should by no means

don and the country, will be placed in, if my construction of the law shall be held by your Lordships to be the right construction; since the surgeons are no more than 150 persons, while the physicians and apothecaries amount to as many hundreds in London alone; and in the country to as many thousands.—E. G.

be prepared to say that no case could be properly considered a surgeon's case in which there was no manual operation. So an apothecary, in the etymology of the word, is a person who keeps a repository for medicine to be delivered out as occasion may require, yet we know now that it goes far beyond that in point of practice, for an apothecary is a person who gives *advice* as well as *medicine*; if not, he would be merely in the situation of a chemist and druggist, who sells medicines. I am not quite sure the rule laid down by my brother Bayley, confining surgical cases to cases of *external* infirmity, may not be too narrow a rule, but I am quite clear that the case of Hancock, upon which the jury found their verdict, was not a surgical case: try it by the test which Mr. Platt has put—the mode of treatment. Here is a person in a consumption, as Mr. Platt has put it—in the last stage of a consumption. A little temporary relief is all that he can have: the defendant is applied to, and he sends him *medicines*: suppose he had not bled him at all, nobody would have denied that that was an apothecary's act. Will the fact of bleeding render it a surgical case? It appears to me that it will not, because that is only a portion of that which is done. We know that bleeding is an operation performed by every apothecary throughout the country. I am, therefore, clearly of opinion that that was a case on which no verdict could properly be found except the verdict for the plaintiffs, and upon that case I think we ought not to grant any rule to shew cause. But I have considerable doubt whether the witness, Watson, was a witness competent to be admitted or not, and upon that ground, and upon that alone, therefore, I think Mr. Platt should take a rule to shew cause.

Mr. Justice Liddedale.—With regard to what is stated by Mr. Platt, that this is a surgical case, I think if it was, that the surgeon would have a right to dispense medicine, and do every thing requisite in that respect towards completing the cure; and if this had been primarily a surgical case I should think he was not bound to pay this penalty; but it appears to me it is not properly a surgical case. An inflammation of the lungs, in common understanding, you do not call a case for the surgeon; (suppose there was within reach an eminent physician, an apothecary, and a surgeon, you would either go to the physician or apothecary for inflammation of the lungs, and would not go to the surgeon); I take it, it is not strictly so within the rules of medical people; they do not consider it as a surgical case, and the world at large do not do so. At the same time that I do not, I cannot agree at present with the narrow rule laid down by my brother Bayley, that it is to be applied to external injuries only; he might mean that as merely applicable to the case

them under consideration. There are many cases of internal complaint that would be, properly speaking, surgical cases. Very likely, if those cases had occurred to him, probably he would not have laid down the rule in the way he has done. On the other ground, whether Mr. Watson was a competent witness, I think there should be a rule to shew cause.

Mr. Justice Parks.—I think there should be a rule to shew cause on the last-mentioned ground. With respect to the direction of the learned judge, that it is laid down too narrowly, it appears unnecessary to consider that in the present case, because every direction on the subject of the duties of a surgeon would not have embraced the first case, because it is clearly not the case for a surgeon; the case, so far as the bleeding goes, is a surgical case, because it is in the habit, according to the practice of surgeons, to administer bleeding either by the lancet or leeches. The sending a bottle of medicine is wholly unconnected with the bleeding; it is a complaint not regularly for the cure of surgeons. It appears to me on that first case the plaintiffs were entitled to recover.

Mr. Justice Patteson.—I am clearly of opinion the first case of Hancock was a *medical* case, and not a *surgical* case; and being of that opinion, it seems to me to be quite immaterial whether the learned judge was strictly correct or not in the opinion he expressed to the jury. With respect to the other point, as to the witness, I certainly feel considerable doubt about that, and you may take a rule to shew cause.

COLLEGIUM WAKLEYANUM.

A GRAND convocation of this establishment was to have taken place on Wednesday evening, at the Crown and Anchor; but as no one came, it was postponed. We suppose the *illuminati* who adorn it were otherwise employed on that evening.

LATE RIOT AT THE COLLEGE OF SURGEONS.

OUR readers will hardly believe that, with all his blustering, Wakley has suffered the time to go by without commencing his threatened action against the police officers who turned him out of the College of Surgeons. We are glad to hear, however, that the Council are going to proceed against him, and thus bring the question to issue.

LITERARY INTELLIGENCE.

Preparing for publication, the Third Part of Pathological Observations. By Wm. Stoker, M.D. Senior Physician to the Fever Hospital, Dublin, &c.

W. WILSON, Printer, 27, Skinner-Street, London.

THE
LONDON MEDICAL GAZETTE,

BEING A
WEEKLY JOURNAL

OF
Medicine and the Collateral Sciences.

SATURDAY, MAY 7, 1831.

VALEDICTORY LECTURE
ON
RETIRING FROM THE LONDON
UNIVERSITY,

Delivered Friday, April 29, 1831,

By J. CONOLLY, M.D.

GENTLEMEN,—It is now some months since I addressed a letter to the Council of the University, stating that circumstances, chiefly of a private nature, rendered it necessary for me to inform them that it was my intention to relinquish my professorship at the end of the session.

Retiring, as I do, from a station, none of the prospective advantages of which have altogether escaped my attention—from a station which I was, four years ago, ambitious to attain, and to which I felt it a great honour to be appointed—retiring, too, without the excuse of years, or any consciousness of a growing incapacity for exertion—I feel that a few words of explanation may be thought necessary, addressed to those who have interested themselves in my success; perhaps even to the proprietors of this institution; and certainly to the pupils of its medical school. These, however, for reasons which I know you would all approve, and some of which you will be at no loss to imagine, I shall make as brief as possible.

When the Council of this University, then including some of the most distinguished individuals in this country, did me the honour to elect me to a chair which men older, and of higher professional reputation than myself, might have been proud to fill—flattered by this mark of regard from those who, I

well knew, must, in so doing, have been unswayed by personal feelings, or any of the common motives with which patronage is exercised, I at once abandoned all my professional prospects elsewhere, and devoted myself to the service of the University.

Doubtless, I was in some degree actuated by a sense of the opportunity such an appointment held out to me of being extensively useful, and of obtaining, through my exertions here, that reputation, and those advantages of fortune, about which no reasonable man can, or ought to be indifferent. But, although even then somewhat past the age of romantic expectation, I was yet more invited by the hope of sharing in the honour which would attach to the first teachers in an institution calculated greatly to benefit our common country. To be associated with eminent men, and with them engaged in a noble undertaking, in times the most enlightened, and of the deepest interest; to be the teacher and adviser of my juniors in my profession, and privileged to enforce those views of professional practice and conduct which were worthy of being followed; to be enabled to devote my best years and best exertions to the most useful and honourable of occupations; certainly all these considerations weighed greatly with me when I gave up less arduous occupations, and connected myself with the concerns of the University.

It will be believed that powerful motives must exist which induce me to resign all these expectations, and, when every previous hope has been sacrificed, to retire from a scene of public activity in which I might at least have continued without discredit. I think I could shew

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that circumstances exist—have for some time existed—which so limit my usefulness here as to make it no less my duty, than it is my inclination, to withdraw from this institution. In so doing, however, I do not wish to carry with me any unpleasant recollections. I leave the University with no diminution of interest in its success and in all its great and useful objects. I have endeavoured to be serviceable in it; to promote what I believe to be just and right; to oppose what I believed to be unjust and wrong; to maintain the proper station of those to whom the task of teaching is confided, and to preserve that discipline, without which no school can ever be respectably conducted. The intentions of those to whom it has been my misfortune to be almost in all things opposed, may, I am most willing to allow, have been the same; but the means we have pursued have certainly been altogether different. It is sufficient for me to be able to say, and to *feel*, that I have never willingly neglected my duty to the institution, or any opportunity of promoting its real honour and its permanent welfare—never, for an instant, at any time, placed any interest of my own in competition with that of the University.

How far I have succeeded in my attempts to fulfil my duties as a Professor, it would not be for me to say, even if I were at all able to judge. Although every year has brought with it an increase of the number of my pupils, I have not been so unconscious of the extent and difficulty of the branch of medical education with which I was intrusted, as to be without much and continual anxiety concerning the manner in which my task was performed. Believing, as I have often had reason to do, that the opinion of my pupils was favourable to me, I have always been a severe critic on *myself*, and impressed at all times with a serious sense of the continued labour and observation imposed on me by my situation as a teacher.

During the three winters in which I have delivered lectures on the practice of medicine, a very considerable portion of my time has been devoted to collecting materials from every accessible source; arranging such materials as I best could in my anxiety to omit no knowledge which it was important to convey to you; and reflecting upon them, if not with all the care they de-

served, at least with all that I was enabled to bestow. Had my labours here been further prolonged, many hours of many days of many future years must have been given to completing the arrangement of these collections, and above all, to subjecting them to that frequent and more rigid re-consideration for which hitherto it has been impossible to find sufficient opportunities. Beyond this I should have conceived it to be also a great object of a lecturer's ambition either to prosecute some original branches of practical investigation, or to be so habitually engaged in surveying the relations of all the parts of theoretical and practical medicine as to leave behind him some memorial of his thought, and his research, capable, by presenting a clear and luminous view of some large portion, or of the whole of the science, to mark its advancement in the æra of his labours, and to furnish to others, who might follow him, a point from which useful discoveries might take their origin. This great task, however—perhaps I might say, this highest department of a lecturer's duty—demands leisure, and some degree of freedom from common anxieties, and from the necessity of making other exertions not immediately connected with it. None of these advantages have been enjoyed, or were very likely to be enjoyed by myself as professor here; and I had, consequently, no prospect of succeeding in a noble design to which I would gladly have devoted my mind, and my time, and even my life.

My lectures, therefore, although I very carefully endeavoured to store them with the practical knowledge for which I knew that my pupils would have immediate necessity, must be considered, as far as regards the theoretical or doctrinal portions of them, unfinished and imperfect, containing some hints, some suggestions, perhaps some outlines or sketches, of great and comprehensive principles, or some glimpses of important truths; but all requiring the care and finish which further opportunities, and the long reflection of many years, could alone impart.

Yet, I assure you, I looked forward, even at the very commencement of my career as a teacher, to the time when that career was to close. Without expecting that time to come so early as it has done, I knew that it would certainly

come at last; and this consideration, ever present to my mind, preserved me, I trust, at all times, from the vanity of endeavouring to attract your momentary admiration by specious opinions and delusive theories, which, at the best, could hardly have outlasted me. There has been nothing which I have more scrupulously wished to avoid than any attempt to constitute myself the founder, or even the zealous assertor, of any doctrines which were merely of a nature to blind and dazzle the medical world for a few years, and then to expire. Most anxious that you should admit what was unquestionably true, I have always encouraged a prudent, perhaps sometimes an extreme, scepticism as to medical testimony, and have accompanied the relation of what was unsettled and doubtful with cautions, and with exhortations to further investigations. I have ever been, and I yet remain, desirous, that if remembered by you at all in the future prosecution of your profession, it should be with the acknowledgment, on the acquisition of any new truth, that I endeavoured to leave your minds in a state favourable to its reception, or, perhaps, to its discovery; that I did not labour to store you with prejudices which it would take many years to get the better of, or disqualify you for discerning, amidst the mazes and devices of human error, and vanity, and weakness, and folly, the rays of light occasionally breaking in on the humblest inquiries honestly conducted.

Thus you may, I think, have remarked, that in every subject which has come in succession before me, it has been my invariable aim to lead the student from a consideration of symptoms and morbid appearances to a consideration of the actions of disease, and through this consideration, to rational and obvious indications of cure; not disregarding even empirical experience, but preferring reasonable and fair deduction. I have always been, indeed, more desirous that you should learn to see and consider the object of treatment in each case, than, with an air of infallibility, to announce the means to you.

To such endeavours, if they had been continued, I think I should, in the decline of life, have looked back with satisfaction; and even now, when withdrawing from attempts so unfinished, and without the fame which many in-

dustrious years might possibly have brought me, the recollection of them furnishes me at least with a source of consolation, which no less happy feeling can destroy or take away.

At the same time, gentlemen, I will not affect to have been so wholly without views connected with the improvement of our profession, or so unobservant of the tendency to great professional changes, as to resign my power of promoting some of them without regret. I know, I think, too well, the extent and the difficulty of the subject of practical medicine, to be influenced by any vain confidence in myself, or any foolish desire to depreciate others, when I venture to say, that both as a teacher and a practitioner, what I have myself observed of the application of our science has impressed upon my mind the firm conviction, that of those who die before the natural term of human existence, a large proportion die from the imperfection and error of medical practice. I should deceive you, deceive the profession, deceive the public, betray my trust as a teacher, if, when resigning my functions as Professor, I did not record my fixed opinion, that the study of physic, as a preparation for practice, is in England most miserably neglected.—Every successive year sees hundreds of young men entering upon all the responsibilities of practice, and undertaking the management of the most serious diseases, who are actually not yet sufficiently versed in the practical part of their profession to engage in it with safety to their patients.

For this extraordinary and lamentable fact, which I do not mention because it sounds strikingly, but as a plain and melancholy truth, those at the head of the profession have in some measure to answer. If the first intention of chartered and privileged institutions was to protect the public from unqualified and ignorant practitioners of physic, or even to guard them from the fatal presumption of the vilest pretenders and quacks, most assuredly they do not fulfil that intention. Quackery, protected by the wealthy and the powerful, whose education in this country leaves them too much open to credulity and delusion in matters of science, is signally triumphant; and, whilst the care of the College of Physicians is confined to a very limited circle even of physicians, it is well known that nine-tenths of the

practice of medicine, strictly so called, devolves upon those who have taken no degree in medicine, and who have barely contrived, in the course of one or two years devoted to the study of all the branches of medical science, amidst the labours of the dissecting-room and laboratory, and the lessons of physiology and materia medica, and the important study of theoretical and practical surgery, to pay some little attention to medicine; but how little, none but those familiar with the London schools can imagine. Supposing that surgery will be their principal occupation—surgery, in which, in truth, scarcely any of them will ever be engaged—they seem to have no inducement to the study of physic. Anatomy is held in honour; chemistry and physiology promise discoveries and fame; surgery holds out a certain and defined rank; even pharmacy has its evident utility; but medicine, as a distinct study—medicine, for those who, without being called physicians, are to occupy almost all medical practice—seems to the student to lead to nothing. It offers no immediate advantage; it offers no rank. With the exception of the examination at the Apothecaries' Hall, the proficiency of the student in this branch of study is never inquired into; the College of Surgeons demands no knowledge of it in those who, under the name of surgeons, are to practise it. It is not, in fact, recognised as a study in London; but is left, as a mere appendage to other studies, to accident; and acquired, I know full well, in many instances, during the first half-dozen years of practice, at the expense of many lives.

I have no hesitation in saying that I think there should be some institution which would acknowledge the fact of the existence of these practitioners; which would not by a fiction, resembling some of the singular but less absurd fictions of the law, suppose them to be mere apothecaries; and which would not, partly out of a false notion of dignity, and partly from indifference to all but the aristocracy of the profession, consign the great body of the public to those who too generally practise what they were never required to learn, and what they consequently never learnt.

Those who have more especially devoted themselves to physic, and who, by severe study, have obtained

degrees of medicine in any of the celebrated medical schools of Europe, are in a situation equally unproductive of encouragement to the liberal prosecution of science. Entirely disowned in England, unless they have taken degrees at Oxford and Cambridge; permitted to practise, but not recognized as members of the only existing association of physicians; systematically excluded from the charge of almost all the large institutions for the sick; and disunited amongst themselves; they are obliged to pursue their scientific labours alone and unaided, and to see the scientific medical bodies of other countries, in which a knowledge of medicine is thought the first requisite of a physician, preceding them in many useful discoveries, and in almost all higher investigations of a professional kind.

That whilst in London alone, of all the capitals of Europe, there is no constituted body of grave and learned persons to enquire especially into the qualifications of those who practise medicine, the attainments of unrecognized physicians and general practitioners should still, on the whole, be so considerable, is a proof how much may be done by active and intelligent individuals, without patronage or superintendence: nor would the subject deserve any observation if the protection of the public health, and the neglect of many public questions resting on medical opinion, did not call for some reform.

If, however, such a reform takes place (and that it will take place no one who observes the movements of the profession can doubt), the state of medicine in this country will, I venture to prophesy, undergo great improvement. At present it either remains stationary or fluctuates between injudicious or even absurd extremes. The student either learns his *practice*, as it is called, during his apprenticeship, before he begins to study either health or disease, or he engrafts upon his first errors some daring measures which happen to be fashionable during his short period of study; and, unconscious that in the next season they will be fashionable no more, curiously adheres to them all his life long. One year all is scepticism in the school of medicine; another year every man aims at being a bold practitioner; in the third year some deadly

poison is popular; and not unfrequently the practitioners, and even the teachers of medicine, are seen to submit to recommend what they find the public determined to take without their recommendation: whilst, during all these fluctuations, the principles of medicine are almost divided, the study of serious and difficult diseases is far too much and too generally neglected, few think of engaging in questions of great professional and public interest, and every candid practitioner could, I am perfectly convinced, relate, from his own observation, instances of mistakes which he has witnessed in private practice, of a nature to greatly take away public confidence from the practitioners of medicine.

To promote such a system of medical education as would lead to the more diligent investigation of disease—to a more scrupulous inquiry into the properties of medicines—to a more profound consideration of diseased actions—a system which would discountenance all those wretched and often-witnessed attempts to create mere surprise, and all the devices of those who look upon medicine as a mere trade—has been, I firmly believe, the constant aim of my colleagues in this University. I consider it an honour to have been associated with them in such an undertaking, because I am sure it is one which will ultimately produce very extensive public benefit; and therefore it is that I do feel some concern that my power of promoting such beneficial changes, and of contributing to advance the dignity of medical science, must necessarily, by my retirement from a conspicuous situation in the profession, be materially diminished. I leave the task, however, in able hands; and whatever attempts are made will be assisted, at least, by one powerful auxiliary, ever active, ever in progress, ever tending towards great ends—I mean by *public opinion*;—which points, with steady finger, towards all those reforms to which I have thus hastily alluded.

Let it, however, be remembered that these ends cannot be accomplished by monopolies, by exclusions, and by affronts put upon men of learning and science acquired in unrecognized schools, nor by perpetuating the hasty preparation now made for most serious duties; but by more time being devoted to study, and, by new arrangements, making

the study of physic a source of honour to all engaged in it. Then will those attainments which, amidst many disadvantages so many physicians and general practitioners now make with labour and preserve with difficulty, become the common objects of professional emulation; and the school of London will become, as it ought to be in such a capital and in such a country, the first school of medicine in the world.

That, during my short career as a public teacher, I should have had so many gentlemen for my pupils whose general attainments, as well as their attention to their professional studies, give the best assurance of their future respectability, usefulness, and even eminence, is an honour of which I am certainly extremely sensible. The interest which they have appeared to take in the lectures which it has been my duty to deliver here, has been highly gratifying to me. I shall never bear of them, and especially of their advancement and distinction, with indifference. The diligence which so many of you have evinced I fully appreciate; for I well know the many anxieties that often weigh upon the student's mind. I appreciate, to its full extent, the ardour, the patience, the unabated industry, which triumphs over these and all other obstacles. There are no years to which you will probably look back with more satisfaction than your years of study; and if, in such a retrospect of the honourable labours which led (as, in your instance, I sincerely trust they will) to success in your profession, I should ever be thought of as one who communicated some useful knowledge to you, and, above all things, feared to mislead you by imposing delusions, then, gentlemen, will the moderate and just ambition which alone I feel be amply satisfied.

Many of you are now about to leave the schools, and to commence practice. If I may add to what I have said a word of advice relating to your duties as practitioners, it will be that you cultivate the good will of your seniors, who may be already prospering in the places where you are about to fix yourselves; and also of any competitors of your own standing: that you be not impatient for that share of public confidence which will surely come to you if you are industrious, and otherwise

deserving of it; that you be the promoters of benevolent and liberal institutions—for these are the only brilliant things for which our profession affords opportunities; that, by observation, and the perusal of the works of able men, you keep up your knowledge to the point to which medical science will be every year rising; that you despise all the contemptible arts of open or of concealed quackery—arts which are seldom permanently successful, and which always permanently disgrace; and, in short, that in all things you act, not from mere worldly motives of transitory importance, but from a high and steady sense of duty.

The advantages of fortune, of family connexions, of great introductions, accomplishments, and agreeable qualities; a perfect knowledge of the ways of the world; all these may fail to establish you in prosperity: but industry, study, labour, perseverance, a devotion of your days and nights to your profession—making all other objects secondary, all other pursuits subservient to it—these will surely carry you forwards to what you desire.

Chiefly, gentlemen, in all your studies, in all your speculations, in all your researches and pursuits, recollect that *to discover truth and to do good* are, of all things in this world, alone worthy of your labour, and consideration, and care. You are but following others in the great path of human exertion; adding your name to a long catalogue of men who had the same hopes and fears, the same ambition and desires, as yourselves. Pressing closely upon you will follow another generation—other generations—equally busy, and equally short-lived. Be able to say, then, whilst you live, as Harvey said, when reviled by his unworthy enemies, “I follow truth alone”—*veritatem solam sequor*; and no little obstacles, no narrow opposition, no worldly disappointments, need discompose you. Serious cares, or even great afflictions, no one of you must expect to escape; but the only way to avoid little cares and vexations, which far more fret the temper and impair the character, is (as Sir Joshua Reynolds used to advise his juniors and followers in his own art,) “to disregard trifles,” and to keep great objects ever in view. Recollect how little can be gained by the most restless ambition, by the most unquiet

passions; and let it be your care that the enjoyment of what you do acquire be not poisoned by the recollection that it was got by dishonesty, or wrung from those who could ill spare it. And if you live to find that your exertions are rewarded by fame and influence, let it be your honest pride, in that advanced age when your ear will be becoming dull to the voice of praise, and your feeble grasp must soon let go its hold on all influence, that you did not reach either one or the other by mean arts or tortuous policy; but that all your dealings and conversations were no less fair and open than your intentions were pure and honest. Then if, as years creep insensibly upon you, the esteem of men,

“And that which should accompany old age,
As honour, love, obedience, troops of friends,”

follow you, it will be well. If those rewards should accidentally be withheld—if your motives should be mistaken—if your actions should be misrepresented—or your best intentions frustrated—you may trouble yourselves little for all this, and still preserve your tranquillity; for you will be able to reflect, that you have ever tried to be, as far as your opportunities permitted you, the benefactors of your fellow-creatures. The excitements of ambition, and the dreams of hope, and all the common consolations derived from social and affectionate intercourse, fade away as life advances; but the recollection of days not ignobly, not frivolously, and vainly spent—“*memoria bene actæ vitæ, multorumque benefactorum recordatio*”—that consolation may remain to the last.

I hope, gentlemen, you excuse my taking leave of you in terms like these, differing, no doubt, from the common formality of leave-taking. Feeling that my opportunities of impressing on your minds truths which I believe to be important are leaving me, I may, perhaps, be unduly anxious to compress into one discourse the principles which I should wish to see pervading our whole profession. Valuing science much, the aim of science appears to me to be poor, indeed, if it is pursued without any higher object than its acquisition. Greatly wishing that you should be skilful and learned practitioners, I no less desire that you should help to form an age of liberal, and good, and great practitioners.

Educated as you have been, and ac-

customed to reflection, you cannot but sometimes reflect on the origin, end, and intention of this mysterious existence. Tracing the organs and actions which conduce to life, the great problem of life must often present itself to your minds. Amidst doubts and uncertainties which no philosophy can solve, it will, I think, occur to you, if such reflections are not strangers to your thoughts, that all true and ennobling ambition—all for which life is really valuable or useful—resolves itself into the duties of self-improvement and self-government, and the communication of means of improvement and self-government to others. These duties comprehend every social, every professional, every private duty; and enter into every comprehensive design which man can conceive. In proportion to the advantages you have enjoyed, your engagements to these great duties are the stronger; and they are the only duties for which no worldly circumstances can possibly disqualify you.

Confidently hoping, gentlemen, that such will be your ambition, it will always be to me a source of satisfaction that we were thrown together here, though but for a short time;—and, as regards the part of life that is before you, I can only add, from my inmost heart, that I hope all happiness and honour will attend you; that years will not bring you cares and sorrows, but confirm you in those views to which I have, perhaps, given too fervent an expression. So acting, I trust you will attain that success, fortune, influence, and distinction, which it is laudable to desire, and which none may desire more properly than those who wish to win them, and to wear them with honour.

Lastly, for this University, of which I now take my leave, I sincerely wish it full and permanent prosperity. Centuries hence, when the early difficulties which beset it shall have been long overcome; when the early dissensions which prevailed in it shall have been long forgotten; and when one for so short a time connected with it as myself cannot even expect to be remembered in its annals; I trust it will yet flourish among those institutions which will be venerated as having contributed to impart that knowledge to the great mass of the people which forms of government, daily becoming more of a popular character, will have rendered more and

more necessary. In ages yet distant, when arts and sciences—when knowledge, and all the blessings of freedom—shall have been introduced into regions of the earth now deformed by superstition, or debased by slavery, or unreclaimed from savage life, I trust they will not have become mere matters of melancholy memorial in this island “of the great and free;” but still be cultivated and cherished, and *within these then ancient walls* be cultivated and cherished, and associated with all those enlightened views and great designs which it is man’s highest privilege to entertain, and by which the greatness and glory, the prosperity and happiness of nations, can alone be perpetuated.

ST. THOMAS’S HOSPITAL.

CLINICAL LECTURE,

DELIVERED BY DR. ELLIOTSON,

March 14, 1831.

MONOMANIA—INSANITY—PHRENOLOGY.—
Cases of Aneurism of the Aorta—of Chronic Peritonitis—Bronchitis—and Neuralgia of the Heart.

DURING the last week, gentlemen, five cases left us—two among the women and three among the men. With respect to the former, one was the case of the woman who laboured under

Aneurism of the Aorta.

This patient, of course, was not cured, neither was she better; but had she consented to remain here, she would have continued easy, and the progress of the disease have been very much retarded. However she would not consent to live, as it was necessary she should live, upon low diet; and she therefore went out to eat, drink, and die. On the last Sunday in March she had a violent quarrel at home with her husband, and soon afterwards dropped down dead. One of the pupils examined the body, and a large aneurism of the anterior part of the *ascending aorta*, from its point where it leaves the pericardium to the origin of the innominate, was found, with a small pouch projecting from it forwards at the spot which must have corresponded with the fourth or fifth rib, where the pulsating tumor had been felt. The inner coat of the vessel was studded with opaque yellow deposit, both where it was dilated and where it retained its natural dimensions. The left ventricle of the heart was dilated and hypertrophied; but no rupture had occurred, so that death happened from a sudden cessation of the heart’s action.

Rare case of Monomania—Insanity—Phrenology.

The other case among the women was one of a most extraordinary nature—one to which I have never yet met with an exact parallel: it was a case of *monomania*. Monomania is a common affection—that is to say, partial insanity—insanity in one particular only; but this was such a variety of partial insanity as I never before met with, neither have I read of such a case. I will first read the account from the case-book. A. B. æt. 31, a female, was admitted on the 15th January, saying that she had been ill two months. It was represented to me as a nervous case. The symptoms were, a propensity to injure some part of herself, and she had no ease or comfort—these were her own expressions—till she gave way to it. “The part that she desires to injure does not continue to be the same for above an hour at a time, but as soon as the desire to injure one particular part ceases she desires to injure another. The mode in which she is anxious to injure herself is simply by internal efforts. She does not desire to cut herself, to dash her head against the wall, or to poison herself, but to injure herself simply by muscular efforts, unaided by external objects; so that she will hold her breath for the purpose of suffocating herself—she will twist her head to one side, to strain and break all the muscles and tendons on the other side of the neck—she will sometimes force her breath into her ears so as to endeavour to burst them, and make all the efforts she can to strain and force her eyes out of her head. There is a constant desire to injure herself by what she calls “her own internal efforts.” She was quite sensible that this was a morbid state, and lamented it exceedingly. She wondered what had come to her—she wondered what was the matter with her, and said that before this affection she had always had a strong mind, and could restrain her feelings, but now she had no control over her inclinations. Her spirits were of course greatly depressed on account of finding herself in this horrid state. There was no other morbid condition of the mind that I could discover. Her judgment on all points was good; she was under no delusion of any kind, and yet she possessed this desire. There could be no suspicion of the case being feigned, for while you were talking to her, and she to you, you saw her head twist on one side violently, and could discern that she was silently making an effort to rupture some part of the neck or other, or to over-strain it, and you would see her eyes close from the efforts that she appeared to be making. Her head was thus constantly in motion, and I thought at first that she had shaking palsy of the head, or partial chorea; but that was not the case, for she told me that it arose from her own incessant efforts to strain her head

and neck: this appearance of the head was continually going on while you were talking to her.

But the proof that there was no deception in all this was not merely that you saw these efforts going on in too natural a way to be counterfeited, and too intensely for that to be the case, but that there were a number of other symptoms. She was drowsy, she had pain in her head, a sensation of pressure there, and she said a sensation of opening and shutting in her head from time to time, but this was chiefly felt at the sides of her head, immediately above the ears, and shot across the back of the head in a straight line. This sensation was felt immediately above the ears, and extended backwards till the two sensations—the sensations of each side—met. Now she might have said that she had this pain when she had not; but it is a remarkable fact that this was the alleged seat of the pain. Moreover, there were symptoms evidently of disease—visible, sensible; for her breath was excessively offensive—as offensive as a privy; so that those who were much about her complained of it, and could not long hold their heads near her. Frequently it turned my stomach, which is pretty strong; and her tongue was excessively foul: it was coated with dirty, thick mucus. She was in a situation of life, too, which rendered it exceedingly improbable that there could be any deception, for she kept a school, and had, in addition, a little trade in the way of a peculiar kind of needle-work, and by means of them both she gained a very excellent livelihood. She was exceedingly respected, I understand, in her own neighbourhood by medical men who knew her, and by every one else. This I learned from the medical gentleman who sent her here to be under my care. She had hardly any sleep—this is a very common occurrence in insanity: she had scarcely any sleep when she first came to the hospital. I should have mentioned, that besides the pain running backwards from each ear, she said she had a strong pulsation in that part.

Under all these circumstances, I had no hesitation in considering this a case which deserved the title of monomania; that is to say, insanity in one particular point. You are quite aware, that to constitute insanity, it is not necessary that there should be any delusion. Many persons must be treated as insane who have no delusion whatever. The idea of insanity does not necessarily imply delusion: for if an individual labour under an actually irresistible desire to do something which is wrong, certainly that person is to be considered insane.

With regard to our idea of insanity, it may be very difficult to give an exact definition: many have attempted it, and many have failed. The most satisfactory defini-

dition of the disease which I have met with is that given by Dr. Spurzheim, in his work upon Insanity. He considers that insanity is to be regarded as a morbid condition of any intellectual faculty, without the person being at all aware that it is in a morbid state, so that he has wrong notions, not through ignorance, or affection of the external senses, but while he has equal means of information with every body around him; or it is the existence of some of the natural propensities of the mind in such violence that it is absolutely impossible for the individual not to yield to them. In the one case, the patient is to be pitied, and not considered as answerable for his actions, because he is not at all aware that his ideas on the particular matter or matters are morbid; and in the other case, he is certainly to be pitied and considered insane, because the feelings which it was in his power when in health to control—some one or other of them—are in such force that the individual is no longer a voluntary agent in regard to it, and therefore ought to be restrained. You will find persons with their intellectual faculties wrong, but without any of the propensities particularly disturbed—at least you will find the chief character of the disease arising from the morbid state of some one intellectual faculty or more. But you will sometimes meet with a case where the person has a sound judgment on every point, is not at all insane in his intellectual faculties, but is wrong with respect to some one feeling, finds it irresistibly violent, and perhaps it is vitiated at the same time. Now that was the case here; and such cases are to be found in most lunatic asylums of any size, and many such cases are to be found recorded in books on insanity.

To the second part of Dr. Spurzheim's definition I would make an addition.—Many are really mad from the irresistible energy of some feeling, whom we are not allowed to consider mad. It is only when the violence of it leads to criminal acts, or acts in the highest degree injurious to the person himself or to others, that we can treat him as a lunatic. Many are so preposterously vain, that they act ludicrously on all occasions, and yet no one dare treat them as mad, though they are clearly objects of compassion. Yet the same inordinate action of the propensity to acquire property, or to destroy, (whatever be the true fundamental nature of the latter), might lead to such acts as must be noticed by the law, and might justify us, in the particular case, in declaring the man insane. To that part of the definition, therefore, which states the irresistible violence of a feeling, I would subjoin some such words "as leading to criminal acts." The question whether the belief is morbid—a mental delusion from disease, or only the result of bad information—should, no less than the question, in the in-

sanity of the feelings,—how far the feeling is involuntary, be determined by a competent jury, a jury equal in information to the individual; for if they are inferior, they may consider a wise man mad. The wretched Abderites thought Democritus mad because he searched for the cause of insanity in the brain, but his equal in information, Hippocrates, pronounced him sane. Many persons are pathologically insane that ought not to be restrained as madmen. The law should regard the unsound state of the feelings alone as insanity, only when it leads to criminal conduct. As delusion continually co-exists with a morbid state of the feelings, conduct far short of criminality may often be referred with propriety to insanity from the mere proof of a delusion. But when there is no proof of delusion, we may be unable to refuse ascribing criminal acts to insanity if there is no apparent motive for them, if the individual has ever been mad, if insanity exists in his family, if he has suffered injury or any common internal disease of the head, &c. The propensity which most frequently exists in this morbid condition—at least the effects of which are most striking, is that of the propensity to destroy. Many remarkable instances of this propensity becoming morbidly excited have occurred, and been related. You will find, for example, a very striking instance mentioned by Dr. Otto, of Copenhagen, in the Phrenological Journal.

"A man, 37 years of age, had for some time suffered from fits of *giddiness*, which always obliged him to keep hold of the nearest objects. In the spring of 1828 he lost a beloved daughter, which afflicted him very much. The state of his health was nevertheless perfect, in mind as well as in body, (with the exception of the giddiness) when he one day, after dinner, told his wife that he would take a walk with his son, a boy ten years old." After proceeding a certain way, he says, 'a strange confusion came over me, and it appeared like a matter of absolute necessity to me to throw myself and my son into the water.' "Quite unconscious of what he was doing, he ran towards the water with the boy in his hand. A man, surprised at his behaviour, stopped him there, took the boy from him, and tried to persuade him to leave the water; but he became angry, and answered, that he intended to take a walk, and asked, 'whether any body had a right to forbid him to do so?' The man left him, but took the boy along with him. An hour after he was drawn out from the water, into which he had thrown himself, and taken to prison. As he still shewed symptoms of insanity, he was bled and purged, and two days afterwards was brought into the hospital, and committed to the care of my friend Dr. Wendt, who has perfectly cured him, and who kindly afforded me the opportunity to see and to speak with the patient."

This was the account the patient gave of himself. "He now (continues Dr. Otto) very quietly tells the whole event himself, but is not able to explain the cause of his suddenly arising desire to kill himself and the boy, whom he loved heartily." He only knew that he felt the desire, but he could give no reason for it whatever; and upon being bled and purged, and treated like a person labouring under inflammatory excitement of the brain, he was perfectly cured.

The case of the man who murdered Mr. and Mrs. Bonar, in Kent, a few years ago, I believe, was precisely similar. You perhaps may recollect the circumstance—that a man-servant in the family, who said that his master and mistress had always behaved to him in the kindest way—that he had never received any thing from them calculated to irritate him—and was perfectly sane, as it appeared, in every respect—suddenly one night went up to their bed-chamber with a poker, and beat out both their brains. He was tried for this, and executed, but could give no reason for the act. He suddenly desired, and determined to destroy them, and accomplished the deed, and all the account he could give of it was, that he supposed the devil had prompted him to the act. There was no fury, no rage, no malice—nothing of the kind to explain it, and he was executed. I have no doubt that it was a case of insanity, although, from the particular nature of the evidence, it was considered right to carry the extreme sentence of the law into effect.

Now this woman who was in the hospital appeared to be labouring under a variety of disturbance of this same propensity, the propensity which is called by Dr. Gall, the propensity to murder, or the *instinct carnassier*, or destructiveness, in the nomenclature of Dr. Spurzheim, disapproved of by Dr. Gall,—a propensity, whatever name we give it, bestowed upon animals in general, for the purpose of destroying other animals for the sake of food, and for the purpose of rage, and which exists in us, it has been supposed, in that form as to give the feelings of rage, anger, or indignation. But here was a disease, or the same propensity in this woman, only it was limited to hurting herself. She wished continually to commit suicide, or injure herself. But there was a still greater limitation of it, and a very striking peculiarity in the case, inasmuch as she had constantly a desire to effect the object, according to her own account, and as it appeared, only by internal exertion; not by taking poison, not by cutting herself with an instrument, not even by using her nails for the purpose of lacerating her flesh, but simply by straining, forcing, twisting, stopping her breath, and endeavouring to force out her eyes and her ears.

The case is very instructive; first, as leading you to dwell upon the fact, that insanity

may exist without any of the usual forms which it assumes. However, in these cases of a destructive propensity, there very frequently is a delusion. Many people fancy in these propensities that they are bound to commit the act they are about to accomplish; they have not a simple desire to go and do it, but they fancy that they have a call from heaven to do it—that they are to commit murder, perhaps, on their offspring, for the honour of the Almighty, or in obedience to a special order from him. Many have a notion of that description, many have other fanciful notions, and at the same time have a diseased propensity; whereas in other cases a diseased propensity only has existed. You seldom see the intellectual faculties deranged without finding that there is one or more propensities likewise more or less disordered. When a person fancies himself to be God Almighty—or a king, or an emperor, or an individual far above himself—there is a disturbance of the faculty of self-esteem, and such persons are inordinately proud, and the delusion of the intellect is accompanied by insanity of the feeling of self-esteem. But you may find the one disturbance without the other,—either of them existing alone; and, although frequently you find them both, the one frequently takes the lead of the other, and the one has originally given rise to the other. The feelings constitute by far the greater part of the mind, and the portion of the head devoted, according to phrenologists, to the feelings, is by far the largest portion; and I believe that by far the greater number of cases of insanity are originally characterised by a derangement of some feeling.

Another circumstance, which it may be useful to know in these cases, is, that in insanity there are very frequently the common symptoms of disorder of the head. Every body now knows that the brain is the organ of the mind. A few years ago, in the most celebrated books, this was entirely laughed at, and I have heard it said in the most scientific meetings, that the brain had about as much to do with the mind as the great toe—neither more nor less. But Hippocrates knew better, who, in his book on Epilepsy, says, "by the brain we are wise and understand, and see and hear, and appreciate what is base, humble, good, and bad, &c.; by it we are insane and delirious, &c." This woman had pain of her head, and a sensation of throbbing there. You will find frequently, in cases of insanity, that there are common corporeal symptoms of an affection of the head. Frequently patients have giddiness—frequently they complain of flashes of light, or a singing in their ears—and very frequently they complain of pain, either generally, in the head, or locally, in various parts of that organ. There is frequently in insanity, too, after a length of time, the common effect of disease of the brain—hemiplegia, epilepsy,

sometimes St. Vitus's dance, and various other diseases of the nervous system. A peculiar circumstance in this woman was the pain which she felt, and the throbbing just over each ear, and extending partially around the head. Every gentleman who is in the habit of going round the hospital must have heard her say, that the pain was exactly over each ear, and, though it extended, shot from that situation.

This was no imagination of mine; I did not lead her to any such declaration. I merely asked if she had pain in the head, and she said, yes. I then asked her where it was situated, and she pointed out that exact spot. She was repeatedly questioned by myself and by others afterwards, and she always gave the same answer. Now this was a very striking phrenological fact. I have seen quite enough to satisfy me, and, in fact, I have been satisfied many years, of the general truth of phrenology. I would not wish you, on any account whatever, to believe it simply because I do. I only wish you, because I believe in it, and am satisfied of its general correctness, to think it worth your while, when you are at leisure, to examine into it. I never wish, in lecturing or in writing, to do any thing more than express my own opinion, and to deliver facts and testimony, when in my power, in support of them. As to forcing an opinion by my own authority, or distorting a fact to support any opinions that may appear to me probable, I never *did*, and never *will*, make any such attempt. I only say that I have examined the subject of phrenology most carefully and unremittingly, and have seldom allowed a day to pass without making some observations upon it; and after thus examining it for ten or twelve years I am more and more satisfied, if it be possible, every day, of the general truth of what Dr. Gall has announced. It is of no consequence who denounces it—it is of no consequence who asserts it—the only important question is, is it so, or is it not? If you will take the trouble to examine it, you will be amply repaid for the time it will cost you; and you will not only be able to explain and appreciate a vast number of things which appear to others inexplicable, or trifling, or ridiculous, but you will have a very great intellectual pleasure; you will find it a source of constant and daily amusement, and be able to prosecute all points connected with insanity, and treat the affection with greater success than if you otherwise do not. I would recommend you, when you have time, diligently to study it; for no persons have such opportunities as medical men.

Now I beg it to be understood, that, in saying this, I do not say that I believe every thing which every person has said who calls himself a phrenologist. Much nonsense has been talked upon it—much quackery has

been practised—and the most grossly ignorant, uneducated persons, have endeavoured to acquire notoriety and money by it—to make it the means of gain; and certainly many who have neither attempted to acquire notoriety by it nor make it a source of gain and thus to turn it to their own purposes, have nevertheless taken it up without any sufficient reason, upon the very slightest evidence, and have been able to give no reason (if I may so say) for the faith that is in them. Many, however, who understand it well, may by carelessness give a wrong opinion; but we must remember that such an error is no reason for disbelieving the matter itself. A surgeon may give a very false judgment respecting a case of fracture, or dislocation; but that is no argument against the science of surgery. The only question is, What is the fact? and was this person justified in giving such an opinion in the case, or was he not?

Very frequently persons do an injustice to phrenologists, by saying that they have asserted what no one ever thought of asserting. They not only abuse a man who has espoused phrenology—call him a quack, impostor, and idiot—but they say he has asserted that which he never did. Many will assert that Dr. Gall took a head and mapped it out, as a man would a new country, or an estate: this shall be the organ—(I do not care about the name *organ*, any other term you choose will do, if we are but understood)—this shall be the organ of such a faculty, and this shall be the organ of that, and so on. That, however, was not the case; he discovered the situation of one organ after another, quite (if I may so speak) accidentally;—one turned up after another, and the beautiful arrangement of the organs came out quite independently of him. He was constantly looking out for the faculties and organs; and, from remarkable instances, suspecting one to be here and another there, he made incessant observations till he satisfied himself. You are aware that, according to what he discovered, the lower propensities (those which we have in common with brutes) are all seated at the lower part of the head. Those intellectual faculties, if I may so call them, which we have in common with brutes, are all seated likewise at the lower part; not, however, at the sides and back, like the others, but at the front;—and those which man has in a higher degree than this, and those which are peculiar to himself, are all situated above the others. Now there is no greater proof of the truth of phrenology than this:—Exactly as we find the intellect of brutes rise—and there certainly is a great difference among them—so organ after organ is added and better developed, till we come to those nearest in their minds to man; and in those the organization the most nearly resembles the organization of man. And again—if

you begin with man, and take the lowest individual, you will find the organs of those faculties which are indistinctly marked particularly small; and as you go on through the various grades, till you come to the most perfect human beings—those who are the most perfect in moral feeling and in intellect—you will find the brain rise more and more, the additions being above and in front, till you come to the most perfect, and there the organization is really sublime. The question is not who says so, but is it the fact? You know the head always given by artists to the Saviour, to Jupiter, to Shakespeare, and Bacon. In the Edinburgh Review, which formerly denied that any two heads differed in size or shape, and that the brain had any thing to do, more than the rest of the body, with the mind, now makes the admission, that as animals acquire another sense, power, or instinct, so do their nerves multiply, and their "brains improve in structure and augment in volume, each addition being marked by some addition or amplification of the powers of the animal, until in man we behold it possessing some parts of which animals are destitute, and wanting some which they possess;" so that "we are enabled to associate every faculty which gives superiority with some addition of the nervous mass, even from the smallest indications of sensation and will, up to the highest degree of sensibility, judgment, and expression."

Again, with respect to particular organs, (the word organ is not of modern, but of ancient date; in Burton's *Anatomy of Melancholy* you will find the word organ adopted by him from the Arabian writers,) you will find, as one particular propensity, or intellectual faculty, is more considerable in an individual, that the particular part assigned to that faculty is proportionally larger than in those who have that propensity weak, or have it not at all. In those animals, for instance, which are remarkable for attachment, you find one particular part large, to which a certain name has been given. In those which have a great disposition to construct, you will find the organ which is supposed to be the portion intended for that purpose to be very large; whereas, in those who have no disposition to construct, you will find it very small. But here allow me to make one remark, and that is upon another instance of the errors into which people constantly fall respecting phrenology. They consider that phrenologists, from seeing the head, can immediately tell, in every case, what the man is. That is not correct. A man may have any one part of the head very large, or the whole head may be very large, and yet he may have no corresponding powers of mind—no remarkable propensities or faculties. A man may have a large head from hydrocephalus, or thickened bone; or he may

have a very capacious skull, and it may be filled with brain, but the brain may be of a bad quality. Many idiots have very large heads. If the strength of faculty, if the strength of propensity, were in proportion to the external size of the head, the man named Cardinal, who was two years in this hospital, and whose cast is now in the Museum, would certainly have been the greatest man that ever existed; but the immense size of his head arose from its containing ten pints of water. You cannot, therefore, from the bulk of the head at large, or of a particular part, say that the individual's faculties or propensities are in accordance with it. No phrenologist ever said so; or at least if one ever did, he was not a true phrenologist. But you may say, if you find an individual remarkably gifted in any one particular faculty, or remarkable as possessing unusual mental power and strong feeling—you may say that the size of particular parts of his head, or the size of his head in general, must be proportionately large. Without seeing such an individual, you may say, if you have his character accurately given, that the development of particular parts, or of the whole head, must be very marked. That you can do, but you cannot do the reverse. You cannot, from positive great bulk of the whole head, or of particular parts, declare that the faculties correspond, because it may arise from other circumstances; but when you see positive faculties strongly developed, then you may say that the corresponding part of the head, or the head in general, will be correspondently large.

Then, again, persons will say, that if an individual do not manifest any particular faculty strongly, a phrenologist must expect to find the particular part of the head small. That does not follow. An individual may manifest a faculty in a very weak degree, because the part has not been excited. Many individuals have not shewn particular faculties till a certain period of their lives, and yet it is not known that the head has expanded in correspondence with the faculty. The power of any faculty may be sufficiently strong, but, for want of external excitement, it may never have shewn itself; and therefore an individual may have any part of the head large, like any particular part of the body, and yet not manifest any particular power, though many of the feelings are so sure to meet with external excitement that their manifestation is almost always proportionate to the size of their organs. You must not, therefore, say, from the absence of the manifestation of any particular faculty of the mind, that there must be a small size of the corresponding part of the head; the part of the head may be large, but not excited. Hence you observe that a phrenologist can only say, that, with a positively strong manifestation

of faculty, there must be a positively considerable bulk of the part; but he cannot say the reverse—he cannot say, that with a large development of head there must be a strong development of faculty.

Again, a phrenologist can also say this: if he see any part of the head excessively small, he can say with certainty that the individual can have little power in that particular faculty or propensity. If the head be small, locally or generally—if there be a positive deficiency of brain partially or generally—I do not mean an absence, but a positive deficiency in one particular part, or general smallness—you may say, without fear of contradiction, that the individual must be mentally deficient in some particular faculties or feelings, or deficient generally. The truth, therefore, is this—that from seeing a positive mental development, a manifestation of great faculties or feelings, a phrenologist can say with certainty that there must be a positive cerebral development or corresponding bulk of the head in particular parts, or in general; and he may also say, if he find a positive deficiency of bulk in the brain generally or partially, that there must be a general or partial mental deficiency. This is the true statement of the question.

I may mention that other errors have been committed. It has been said that Dr. Gall declared, (the assertion was made by a most excellent physician in France, and who was a great benefactor to the French, by abolishing cruelty in the treatment of maniacs, and using mild and general means,) it was asserted that Dr. Gall said, that in insanity there must be a particular form of the head. Now this is nonsense; Dr. Gall never said any such thing. He knew that functions might be deranged without any particular structure or formation. A stomach of any size, or of any shape, may become the subject of dyspepsia; and therefore a brain of any size and shape may become diseased. You cannot expect any particular form of the head in insanity; you might as well expect a particular form of the abdomen in dysentery, or in colic. However, an attention to the form of the head is of use in considering insanity. It undoubtedly is a fact, that if a person have a disproportionate development of any particular faculty, it is more or less disposed to go wrong. If a person have, for example, a very large development of what is called the organ of *destructiveness*, out of proportion to other parts of the head, out of proportion to benevolence, that person will be naturally irritable, naturally disposed to anger and malice, and is very liable, from the more frequent excitement of these particular parts of the head, or through the bulk being greater than that of other parts—very liable to get out of the regular track, and thus ultimately to become deranged. So it has very frequently been observed with respect

to *veneration*. A person who is by nature excessively disposed, who has been disposed all his life, to veneration—not arising from rational religion, not from proper religious motives, which every one ought to endeavour to possess, but from having this propensity to venerate so strong as continually to have the mind filled with thoughts of that description—not varying his mental state, and indulging all the feelings and faculties of our nature, all of which have been given, no doubt, by the Almighty for good purposes and for employment—the mind may go wrong. In these individuals you find a very large development of another organ—of that called the organ of veneration. In others is found an inordinate development of what is called the organ of cautionness; in another a great development of the organ of self-esteem, and so on; therefore you may frequently, from looking at the head, consider that persons must be disposed to insanity. One part being so much larger than all the rest, is more frequently in action than all the rest, and from that action it becomes still more liable to excitement than all the rest; till at last it becomes so strongly and constantly excited that the mind is thrown into confusion. If you look, for example, at the head of Bellingham, the man who shot Mr. Perceval, you will find an immense development of all the lower propensities. There is a cast of the head to be purchased. He was known to have been all his life a vain, proud, violent man—excessively irritable, always fancying that others were not doing justice to his merits, and he was always violent. You will find this account given of him, and if you look at his head you will find an immense development of the lower propensities, of destructiveness, and of self-esteem. Now that was an organization which any phrenologist would have said was very likely to go wrong. I have no doubt that it was the over-excitement of these propensities which led him to commit murder. A phrenologist, perhaps, would not have executed, but confined him—would have pitied, rather than condemned him; although even proper pity is no reason that society should be exposed to the ill effects of an unfortunate organization.

You will frequently see facts in favour of phrenology from such cases as that I have mentioned to-day. When a particular faculty is disordered, it is not a very uncommon thing either for pain to be felt there or morbid heat. The faculty of destructiveness was in a morbid state, and the excitement in that particular spot was intense. The pain was felt precisely in the part which Dr. Gall fixed upon as the seat of the faculty of destructiveness. Dr. Wright, late apothecary to Bethlem Hospital, told me that in the various patients there who had parti-

cular faculties, particular sentiments or propensities, excited, he found continually morbid heat exactly at the seat of the affection. I have known many instances of this where there was no uneasy sensation at the spot, but exactly at the part which Dr. Gall mentioned there was morbid heat. The intensity in which this has shewn itself, has been such that, when pomatum has been applied to the head, to prepare it for the application of plaster for casting, the grease has melted at that particular spot so quickly as to run off, while it has remained on the other parts. If, however, you apply your hand, you can frequently feel that there is a local morbid heat. Singularly enough, as it may appear to many, in this woman there was a morbid sensation, and one of great intensity, at the very spot which has been fixed upon by Dr. Gall as the part in which resides the particular faculty of destructiveness. It was only last week that I was dining out; the conversation turned upon various wonderful, incredible circumstances—such as persons appearing before death to their friends. A number of anecdotes were related, of course, and one gentleman stated, that, a few weeks before, he was standing at the door of an inn, at Dover, and a black bird of some kind appeared in the sky, and then seemed to drop not very far from his feet. He went towards it as it lay, and there was "no such thing." At that very moment, he said, "I had a pain in the centre of my forehead, just above the nose; but the pain disappeared and I went in, and was perfectly satisfied that it was nothing but a momentary excitement of that particular part of the brain." Now the part in which this gentleman felt pain, who was neither a doctor nor a phrenologist, was the very spot which is mentioned by phrenologists as the seat of what some call the organ of *individuality*, through which we take cognizance of occurrences and facts. I recollect two instances of individuals who suddenly lost their verbal memory. Dr. Gall placed the organ of verbal memory above the eyes, and in each of these persons there was a violent pain, at the time the verbal memory was lost, and only as long as it was lost, just above the eyes.

These are a few instances of a great many that I could mention. But it is to be remembered, that every affection of the intellect or the propensities is not accompanied by pain. It is not every affection of the stomach that is accompanied by pain or tenderness at the epigastrium; and therefore, that you may have a violent affection of this kind without any corresponding pain, is to be expected.—Again, you may have many pains in the head without any cerebral affection. Many pains take place in the muscles and tendinous parts of the head—many in the pericranium; many take place in the membranes

of the brain—that is, many take place externally to the substance of the brain; and, therefore, while you have many affections of the brain without pain, you have many instances of pain in the head without any affection of the brain. Moreover, it is very possible that when the brain is affected, there may be another cause for the pain in another part—another cause for the pain, in the pericranium, or the tendons of that part; in the tendon of the occipito-frontalis, and in the muscles which are attached to the cranium; so that it is possible that you may have another sort of pain at the same time, not dependent upon disease of the brain.—Again, as it is true with respect to other organs, that, when they are affected, you will not always have pain in them, but at a distance, even the pain of an affection of the brain may not be felt in the spot affected.—It is common in affections of the stomach, to have pain in the ribs, and down the spine, and between the shoulders. When you consider all these undoubted circumstances, you will find, I imagine, the coincidence of local pain in partial affection of the mind, with the phrenological locality, as frequent as can be expected; and the remarkable correspondence of the pain with the phrenological seat of the organ of the propensity affected in this case, cannot but be considered, coupled with all the other examples of the kind, as a strong argument in favour of phrenology. The pain, too, was found, on examination after death, to have arisen from internal causes.

Now this woman died, not of this complaint, for of it she was cured, or nearly so. She was opened, but I was not present; the brain, however, was preserved; and, on examining it, I found nothing; and this was only what might have been expected. In diseases of various parts of the body, you continually open patients and find nothing; so many diseases are merely functional. After neuralgia which has destroyed life, you frequently find nothing; after dyspepsia you frequently find nothing. But although that is the case, you continually do find disease—continually, in opening persons who have been labouring under an intense mental affection, disease is found. You perhaps may not find evidence of disease in the brain itself, but you may find it in the existence of too much fluid within or upon the brain, or in opacity or thickening of its membranes; and you may find it in the brain itself. You find frequently, after disease has been going on in the head, that the brain itself will not shew it; but frequently it does; it is softened, indurated, or excessively vascular. In this case nothing was to be expected, because the woman was cured; but I understand that the dura mater adhered to the brain where the pain was felt—that is to say, at the sides low down, shewing that an in-

flammatory state had previously existed, and had left its common consequence, adhesion.

I should, however, not omit mentioning to you, that the character of the insane person, even where disproportionate development has not been the predisposing cause, corresponds, in most instances, with the character of the head. You will find a very striking example of this in a visit paid by Mr. Combe to the Richmond Lunatic Asylum in Dublin. I have said that the character of the particular form of the head sometimes gives rise to insanity—that is to say, the excessive development of some one particular faculty being out of all proportion, gives rise to insanity from its excess—from taking the lead of all others, till the mind is upset. Besides that, the character of lunatics corresponds generally with their organization. Their organization may not lead you to suppose that they were likely to go mad; but you can see that lunatics in their insanity are malicious, or religious, witty, proud, shewing one disposition or another; and all this generally accords with the make of the head. In Dr. Combe's work upon insanity (which is short, and sound, and modest, like all that gentleman's writings, and richly deserving the perusal of every educated person, whether in the profession or not), you will see an account of his brother's visit; and the facts there stated are highly worthy of notice. They are nothing to phrenologists, because phrenologists must have seen such things every day; but to those who have not attended to the subject, and despise it (and I never knew a man despise phrenology who had examined it with common attention), they must be exceedingly interesting. "In the great majority of instances, the mental faculties, the organs of which were in most ample endowment, were those chiefly deranged; while in a few cases the development of the whole brain was so equable, that it afforded little or no clue to the character of the insanity." This is just what you would expect: that insanity will sometimes be observed without any particular development—that some part of the brain will go wrong from some other cause than its inordinate size; and some parts of the brain will be in an extraordinary excitement without any connexion with their size. The patients were shewn to Mr. Combe without any intimation being given him of the nature of their insanity. The first patient was Patrick Lynch. Mr. Combe considered that the particular organs most largely developed in the man were, "*self-esteem, wonder*," (I beg to say again, I care nothing about names, but the ideas), "*causality, language, combativeness*." These took the lead; and Mr. Combe therefore supposed that "*wonder*, which, when diseased, gives notions of supernatural agency and inspiration, and *self-esteem*, were probably the

leading sources of alienation; that the man would have high notions of inspiration, and be excessively proud; and that causality and language would also be conspicuously manifested." The physician to the institution gave this account:—"Religious pride, with vivid imagination, and the highest degree of excitement, requiring restraint; *fancies himself inspired and endowed with omnipotence*; frequent hallucinations; *visits from heaven*; great *flow of language*, in a style quite superior to his rank in life." Then there is another case, E. S. Mr. Combe remarked, that the organs particularly large were those of *destructiveness* and *combativeness*; that "it was the worst head he ever saw—worse than Hare's. *Combativeness* and *destructiveness* are fearfully large, and the moral organs altogether very deficient. The best developed of them is *benevolence*, but it is miserably small compared with the organs of *combativeness* and *destructiveness*. I am surprised that that man was not executed before he became insane." Then the physician to the asylum told him, "Total want of moral feeling and principle; great depravity of character, leading to the indulgence of every vice, and to the commission even of crime. Considerable intelligence, ingenuity, and plausibility; a scourge to his family from childhood; turned out of the army as an incorrigible villain; repeatedly flogged; has since attempted to poison his father." Then there was a third patient, in whom the prominent organs were declared by Mr. Combe to be those of *self-esteem* and *firmness*. Dr. Crawford then stated the case to be one of "monomania; *high pride*; an emperor, very overbearing, quarrelsome, and dangerous, but is easily tamed." The next case was a man of the name of Brady. The statement given by Mr. Combe was, "Deficient *combativeness*, hope, and veneration; and very deficient *ideality* and wit; large *cautiousness* and *conscientiousness*; therefore he will be disposed to melancholy." Dr. Crawford remarks, "*Melancholy*; great *timidity* of disposition. Fancies he was accused of theft, and has constant apprehension of punishment, either human or divine; a variety of hallucinations on this subject. *Gentle* and kind. His master, to whom he was butler, was robbed, and although the thief was discovered, this occasioned his mental derangement."

Now you have seen an instance of this sort, though differing in some degree, in the case of epilepsy united with hypochondriasis. That man was constantly fearing every thing about his health; but he was as quiet a creature as any in the world. He had an immense development of what they call the organ of cautiousness, or fear; while *combativeness* was very small. The one

was absolutely large, as well as large compared with the whole head; and the other was absolutely small; and therefore the two, when contrasted with each other, were in immense disproportion.

The total number of patients submitted to Mr. Combe's examination were twenty-three. "In fifteen or sixteen the coincidence between the development of the brain and the nature of the lunacy was as great as in the cases quoted. In four the organs were so developed as to afford no grounds of inference; and in one the features of the hallucination and the predominant organization did not correspond." That is just what we might expect—that in most there would be a correspondence between the development and the character, even in the insane state;—that in some there would be no relation between the one and the other, as local disease had arisen from other causes than excessive development, and the great excitement had affected the character with a force equivalent to great size, that the parts were not disproportionate in power, if I may so speak, by nature, but had been forced out of their proportion by some cause of excitement; and in the one out of the whole number of twenty-three—the only one in which there was no coincidence at all—some cause of excitement had been so violent, as to have been more than a counterbalance for absolute inferiority of proportion.

With respect, however, to the *treatment* of this woman, our patient, I considered that an inflammatory affection of that part of the head was the cause of the pain she experienced. I cupped her behind the ears to twelve ounces, and gave her calomel, five grains twice a day, and put her on low diet. Leeches were again and again applied to that part. She was admitted on the 18th January, and twenty leeches were applied to the seat of the pain every day till the 8th February. From the 8th of February they were applied every other day for a fortnight. Her mouth soon became tender, and, as that took place, her tongue became clean, and her breath ceased to stink; at last it began to smell of mercury, but the odour was quite changed in its character, and supportable. She twisted her head less and less, and she slept more; she was observed to sleep several hours in the night. The pain in the head left her; and she now felt relieved from the disposition to strain and injure herself. She was a deformed woman, and the lungs and heart had hardly any room to play; she was subject to more or less bronchitis, and was seized with an attack from being placed near a window, and it was necessary on account of this affection of the chest to bleed her. She was bled to six ounces, recovered from the bronchitis, was now really well, and was to be presented on the following Thursday. On the Saturday, however, be-

ing in the ward just as usual, she was seized, I understand—for I had left the hospital—with pain in the abdomen, and in a few minutes died. The friends came for the body before the inspection could be completed.—The head was examined, and also the chest, but nothing morbid was found in either, except the adhesion of the dura mater to the brain, above the meatus auditorius externus. On account of the friends waiting for the body, the examination of the abdomen was not proceeded with, and therefore the cause of death is unknown. Whether she died from a rupture of any thing of the abdomen I do not know; but she was seized with sudden pain there, and in two minutes was dead. I have no idea at all of the nature of the cause of death, although I am quite satisfied that it was in the abdomen.

I have had some very curious instances of an affection of one particular part of the mind. I recollect one young lady, whose insanity consisted in an excess of fear chiefly with respect to cleanliness. She never could satisfy herself that she was clean; she always feared that she was dirty. It was most tiresome to be with her in the street; for if she passed any thing on the pavement that looked black, she fancied that it was dirt from an animal, and that her clothes must have touched it, and consequently must be dirty. She would stop and look at her clothes, unable to satisfy herself that she was clean; and when she got home she would wash her hands, lest they, in touching her clothes, should have been contaminated. She was perpetually in fear. I understand that when she went to the water-closet, she would remain there till she was dragged away, never satisfied that she was as clean as she ought to be. She would wash her hands for hours together; and they were obliged to pull her away from the wash-hand basin. She was always afraid that she had received some contamination; and was constantly regretting that she was not like other people; and had forebodings that she should certainly go mad. She was wrong, however, in no other point than fear, and that chiefly of being dirty; and she would rub her cheeks till she made them smart. There was another lady, whom I did not see, but who was also affected with another modification of fear. I was consulted upon the case, but not allowed to see her lest I should contaminate her—lest I had been with some one labouring under typhus fever, and should convey the contagion to her. It was with the greatest difficulty that she allowed her medical attendant to see her; and she shut herself out from all society—in fact, was upon this point decidedly deranged, constantly dreading the contagion of typhus fever. She had been affected in the same way some years before.

It sometimes happens that the insanity becomes more general after it has existed

some time in this partial manner. The character of it, therefore, alters very much; and very possibly in this lady it will become general insanity; but when I was consulted about her, that was the only symptom that was noticed. In insanity with delusion you find various feelings in excess, and others deficient. Some persons have only one faculty wrong, but others have two, three, five, or six; and so you may have the various complicated forms of insanity. I believe, if you analyze them, you may reduce them all in a great measure to phrenological arrangement. It is quite absurd to think of classing different forms of insanity as distinct diseases, because sometimes there is one feeling and faculty, and sometimes another, disturbed. There is an endless variety. When you consider how all the characters of men in health vary, you may conceive that in insanity the character must vary. There is no occasion to consider insanity in its immense varieties; you have only to consider how many words in our language and other languages are made up from rather more than two dozen letters, and you may well conceive how various a combination there may be in proportion to the few faculties that we possess. This leads me to make another remark on the incorrect statements of the adversaries of phrenology. They consider that Gall and his disciples say there is a specific number of faculties, and no more. Gall has said no such thing. "I have discovered," says he, "many, but how many more may be discovered, I cannot tell. Yet, when I consider how many words are made up of a few letters, I can imagine that many more may be discovered, and that the number already discovered will be nearly sufficient to explain the phenomena of mind."

Chronic Peritonitis.

There were three other cases presented, gentlemen, in the course of the week, on which I have not now time to dwell. One was a case of *chronic peritonitis* in a young man who had sandy hair, and was looking altogether very scrofulous, and I should fear that one day or other he will become the subject of peritoneal and mesenteric scrofulous disease. The symptoms were, tension of the abdomen, with considerable pain on pressure in various parts, and slight fluctuation. I could not ascertain the existence of mesenteric disease, but from his scrofulous look, I think it exceedingly probable that there was more or less affection of the mesenteric ganglia, as they are called; but by repeatedly leeching him, and making his mouth gently tender, very cautiously, the symptoms disappeared: he got up, and felt himself perfectly well. From the disease, however, having continued so long, as well as his habit being very scrofulous, I think nothing is more likely than that the affec-

tion may return. I found that he was 22 years of age, and had been ill two months. Thirty leeches were applied; he was kept perfectly still, the abdomen diminished, and he did perfectly well. The fluctuation which had been present entirely disappeared, and also the tenderness; but I will not detain you with the case.

Chronic Bronchitis.

From William's ward a case of chronic bronchitis was presented, which had existed many years. There was sonorous and sibilous rattle in various parts of the chest, and copious frothy expectoration, with cough and dyspnoea. There was, from time to time, a great increase of the difficulty of breathing—spasmodic dyspnoea. He was relieved, he said, very much by taking the compound tincture of aloes, saturated with bruised aniseed. There is a sort of elixir, a secret medicine, which evidently contains a great deal of aniseed; and certainly, in many cases of spasmodic difficulty of breathing, affords very great relief. I endeavoured to imitate it by the suggestion of Dr. Prout, who found in it myrrh and aloes, and considered it in every respect a compound tincture of aloes, only that it is made with rum, instead of spirits of wine, and an abundance of aniseed. Of this he took one or two drachms three times a-day, and, he said, with great relief. I know that many persons regret that the London College have altered paregoric. Paregoric elixir formerly contained a quantity of aniseed, and old practitioners, who have used the old preparation for many years, have told me frequently that it was more effectual in relieving cough than paregoric as it is now made. I believe it was omitted on account of aniseed being supposed to possess no particular virtue, and yet being nauseous to many people. One gentleman told me that an old physician was very cross on hearing him regret that the aniseed was omitted, and declared it was very properly omitted, for it turned every body's stomach. But those best acquainted with paregoric, believe, though it may turn the stomach, the old medicine answered better. I cannot say that I have myself made sufficient observations upon the two, but I have heard some elderly practitioners say that there is a great difference in the effect of the two, and that they now keep two kinds—the new for the prescriptions of others, and the old for those patients who are solely under their own care.

Neuralgia of the Heart.

A case went out not at all better, and which appeared to be *neuralgia of the heart*. The man did not stay long enough in the hospital, but I do not know that I could have cured him had he remained. I was anxious

that he should stay a length of time, that I might endeavour to cure him. He had sudden pain running across the heart, diagonally downwards, from the centre of the sternum, in the direction of the left nipple. It was not more violent if he walked gently, but if he moved quickly then the pain was more severe. I could discover nothing particular in the pulse, nor by the ear. The pain was sudden and transient, darting exactly like neuralgia in other parts. It was not angina pectoris, for it came on when he was sitting perfectly still, and he even got relief from gentle motion; and it did not stop his breath at all, make him feel faint, or give him a dying sensation. It merely caught his breath as much as a sudden pain in any part of the body.

I gave him carbonate of iron, and he was much better in one respect, that is to say, as long as he was still he was free from pain; whereas, at his admission, he was always in pain; but it did not prevent the pain when he was moving about quickly. Whether I should have succeeded still farther, if he had remained in the hospital longer, I cannot say. I have seen four cases in my life of this affection, but I have not had an opportunity of treating any of them so perseveringly as I could have desired. It is, however, very possible that in some of them the carbonate of iron, which has a great power over neuralgia in other parts of the body, would have done good.

EXTRAORDINARY DISORGANIZATION OF THE STOMACH,

With General Disease of the Abdominal and Thoracic Viscera.

By ROBERT VENABLES, M.B.

Physician to the Chelmsford Providence Society.

THE following curious derangement of the stomach occurred in the practice of Mr. Bird, of Chelmsford, with whom I attended the patient till his death. The circumstances are so extraordinary, independently of the interest which such a degree of morbid derangement presents for the consideration of the pathologist, that I do not consider it necessary to offer any apology in submitting them to the notice of the profession.

On Monday the 2d August last, I was requested by Mr. Bird, at the desire of the family, to visit Mr. A—, aged 56 years. He was a master mason, or bricklayer, of moderate stature, extremely thin, spare habit, almost emaciated; sallow complexion, the sallow hue pervading the whole surface of the

skin, which presented a rough shrivelled appearance. The veins were prominent and turgid, especially on the backs of the hands, temples, &c. He had been for some time troubled with a circumscribed tumor of the gum of the upper jaw of the right side, connected by a broad thick base, and which it was necessary to remove occasionally by ligature; but nothing applied proved sufficient to prevent its reproduction, though its growth was arrested in a considerable degree by applying a solution of lunar caustic after the coming away of the ligature.

When I visited him he had been for some time under the care of Mr. Bird, but derived so little benefit, that I was requested to assist my friend. Though sufficiently ill to require professional assistance, yet he was not wholly confined to the house, but continued to attend to his daily business. The principal symptoms were obstinate costiveness, with severe griping pains of the bowels. At this period there was no pain on pressure; the pulse was full, but there was nothing else worthy of notice about it, unless when he was labouring under a febrile paroxysm, which occasionally happened, the fever assuming the remittent form. It was not very difficult to relieve the bowels by saline aperients; but in the smallest doses in which they would operate—as a drachm or two of the sulphate of magnesia—they acted so violently and severely, that he was left in a deplorably languid and exhausted condition, from which he did not recover for three or four days, the bowels becoming locked up again as before. The only thing which seemed to agree with him was a combination of the compound camboge pill, the galbanum pill, with a large proportion of extract of hyoscyamus. But frequently this combination proved inert for several days, and on giving the slightest dose of castor oil, infusion of senna, or other aperient mixture, to assist the operation of the pills, hypercatharsis was superinduced, followed by the same languor and exhaustion already complained of. The compound decoction of aloes acted mildly when successful; but it proved so generally inert; that it was not considered safe to trust to the chance of its ultimately operating. The oil of croton acted in small doses, but so violently, that it seemed hardly safe to re-

sort to its use, except under extreme circumstances.

From the peculiar appearance of the tongue, which had a cherry-red appearance, and was deeply sulcated, I suspected a disorganized condition of the mucous lining of the stomach and alimentary canal. He suffered very much from nausea, and from the occasional attacks of remittent fever. Although fully satisfied that the febrile symptoms were in a great measure owing to the state of the stomach and bowels, still as his residence was very unfavourably situated, it occurred to me that if he could be prevailed upon to leave home for a little time, the morbid catenation might be in some degree broken or interrupted, and a check thus given to the irregular febrile accessions, whereby their reaction upon the original or primary disease might be prevented, the suspension of which, it was to be presumed, would be attended with at least a temporary, if not permanent, mitigation of the more urgent and distressing symptoms. In this expectation I was not wholly disappointed; for on his going to Margate, where he remained for a fortnight or three weeks, he had but one paroxysm, and that the day but one after his arrival. The arrest of the febrile accessions was attended with considerable mitigation of the urgent symptoms, and a temporary suspension of the progress of the disease was at last *apparently* effected; for, although far from being essentially relieved, yet he returned in seemingly better health, and in evidently much better spirits.—The amelioration of the symptoms, however, proved of but very short duration, for he soon relapsed, and far more formidable symptoms speedily supervened.

The abdomen became tumid, tense, and distended as if tympanitic—fluctuation, however, not being perceptible. There was a most distressing nausea, with ineffectual efforts to unload the stomach; the bowels became more obstinately constipated, resisting now the action of those aperients which so sensibly affected them at first. At last they became insensible to every thing but powerful doses of extract of elaterium; and these it was frequently necessary to assist with oil of croton before they would act. Next succeeded borborigmi, eructations, with the occasional discharge of air of very offensive

and very foetid odour*. Sometimes, but almost incessantly a little before the fatal termination, a large quantity of a viscid, yellowish mucus, was vomited up, which was evidently an impure gastric juice, mixed with a large proportion of the contents of the duodenum, poured into the stomach by the inverted action of this viscus, and afterwards ejected by vomiting. When the elaterium operated, either singly or assisted by the croton, it brought away an enormous quantity of alvine matter, of a blackish-green colour, and of the consistence of treacle, mixed with a large proportion of hard solid fæces, in lumps of the same blackish-green colour. This had evidently been retained for a long time in the cells of the colon, and in the small intestines. As the appetite began to fail at this period, it seemed quite a mystery to himself and his friends whence this enormous quantity of fæculent matter could come, as they observed "he did not eat in a whole week one-third the quantity of matter evacuated at a single stool."

It would be quite foreign to my purpose to enter at any length upon the treatment of this case, because latterly it was quite empirical, and, indeed, conducted upon no fixed principle beyond mere efforts to prevent costiveness and a total stoppage of the bowels; but farther it will appear in the sequel, there can be little doubt that the fate of this patient was sealed long before he thought of applying for any professional aid or advice whatever. Every exertion for his relief failed, and he died in the latter end of January. With the assistance of Mr. Bird, and Mr. Paterson, of Ingatestone, I examined the body about fourteen or fifteen hours after death.

The body presented an appearance of very great emaciation, and the abdomen was very much distended. On opening into it, about a gallon and a half, or two, of greenish yellow, watery-looking serum, was found collected. The accumulation of this fluid may seem to militate against the opinion originally entertained and advanced in a preceding part of this paper—that there was no

* This gas was sometimes discharged in great abundance, and I found it to consist of hydrogen, sulphuretted and carbonetted hydrogen azote in large proportion, common air, and carbonic acid gas.

fluctuation, and consequently no ascites. I myself had not seen the patient for three or four days before his death; and on discovering the sero-aqueous fluid, I observed, that, in my opinion, the greater part of it had exuded after death; as I have, before now, witnessed unequivocal instances of such exudation. In confirmation of this view, Mr. Bird, who saw this man a few minutes both before and after his death, stated, that although it had not immediately struck him till my observation, still he had a distinct impression that both the distention and tension of the abdomen had much increased since death in the morning. Having removed the fluid, we commenced looking for the viscera in order, but were much surprised at not being able immediately to discover the stomach; the transverse arch of the colon, loaded with *fæces* and distended with air, presenting in the situation usually occupied by the former viscus. There were strong fibrous bands, or cords, most of them about the thickness of the brachial nerve, and of an equally strong and firm consistence, connecting different portions of the intestines, and stretching from them again to the peritoneum lining the abdominal parietes. These fibrous cords so bound the intestines, and so limited their motion, that it was necessary to divide them, to admit of searching for the stomach. It was at last discovered; but so contracted in size, so altered in structure and appearance, and so closely tied down to the spine, that it could scarcely be recognized, except by tracing it from its connexions with the *œsophagus* and *duodenum*. It was a flat, thickened, hardened mass, of rather less dimensions than a five-shilling piece, but of no regular form: the consistence fibro-cartilaginous. On dividing the superior surface, so as to cut into the cavity, we found it to be fully two inches in thickness, and very much corrugated. The superior and inferior surfaces were so closely approximated as to have nearly obliterated the cavity; indeed it could not admit a half-crown piece without considerable force, and which, when so introduced, evidently shewed that, before the division of the substance, there was not room for so much matter. The substance of the stomach itself was completely *blanched*, and shewed

not the slightest trace or indication of vascularity. The cavity contained a small quantity of the same viscid, yellowish, mucous-looking matter, noted as having been vomited up during life, and with which the internal surface was, as it were, thickly besmeared. The cardiac orifice felt rather harder and firmer than natural, but afforded no other indication of disease. The pylorus, however, was contracted; its substance thickened and condensed, as it were, into fibro-cartilaginous consistence. The natural appearance of the internal surface of the stomach, or indeed the slightest approximation to it, was no where to be recognized. When the viscid mucus was washed off, it presented a whitish surface, wholly destitute of the villous rugæ and plicæ apparent in the natural states of this organ. It was, however, very much corrugated and tuberculated. The *duodenum* was diseased, but in a comparatively very slight degree. The internal coat was firmer than natural, and was thickly pervaded by prominent dark purple vessels, like veins; in some parts slightly abraded, in others corrugated.

The small and large intestines externally were overrun with blood-vessels of a dark purple colour, internally loaded with *fæces* and distended with air. In several parts there were small knotty protuberances, similar in their structure to the cords above-mentioned, of different sizes in different parts. On opening into the cavity of the small intestines, they were found to contain a great quantity of that semifluid, blackish, treacly-looking matter which had been voided in such abundance during life. There were hard lumps of solid *fæces*, varying in size in different parts, lodged in the intestines, between the *valvulæ conniventes*, and in some places adherent to the coat of the intestine by small thready cords of coagulated lymph, upon which the *fæces* appeared to have consolidated. They were all distended with air, and in many parts the internal coat was abraded, in some places nearly approaching to ulceration. In many places the mucous glands were converted into hard knotty protuberances, or tuberculated; while the *valvulæ conniventes* had become corrugated masses. The large intestines had assumed similar morbid appearances: the only difference was,

there being no semifluid *fæces*. The *fæces*, however, retained in the cells of the colon were generally much harder and dryer; so much so that they could not be broken down by the strength of the fingers; and their attachments, by means of the cords of coagulated lymph, much more numerous and firm. These attachments prove their long retention, and account for their resisting the action of the most powerful purgatives.

There was no natural trace of omentum, it having been converted into a kind of condensed ligament. The mesenteric glands were in some places hard, in others soft masses. The kidneys were much enlarged.

The liver was not enlarged, and could hardly be said to be diseased. The gall-bladder was very much reduced in its size, and was filled with a blackish-looking fluid, something like thick ink, but more unctuous in its consistence*. It was evidently from intermixture with this bile that the alvine discharges derived their colour and general appearance. There was little remarkable in either the pancreas or spleen.

On opening the chest, the right lung was found adherent to the pleura costalis all throughout, nor could they be separated without a degree of violence sufficient to destroy the structure; in fact, to tear away the investing pleura from the lung. On the left side, the adhesion was not so great, nor so extensive. The lungs were not so spongy, and had become much harder and firmer than natural. They nowhere, however, presented the *vascular* characters of *active* inflammatory action. The heart was enlarged, and its substance soft and flabby. No other remarkable appearance about this organ.

Having now stated the principal circumstances of interest in the history and morbid anatomy of this case, it only remains to make one or two observations upon its nature and symptoms. It must be evident upon the slightest reflection, that the disorganization in the stomach, and, indeed, generally throughout the abdominal viscera, could have been of no recent origin. The morbid condi-

tion of the stomach must have been of long standing, and it is impossible to conceive the advance from a state of health to disease of such a character as the operation of so limited a period, as from August to January, little better than five months. The unnatural contraction of the cavity of the stomach rendered the accumulation of any portion of food almost impossible, while the morbid change of structure fully warrants the conclusion, that the process of perfect *chymification* formed no part of the functions of the animal economy for a long period. How, then, are we to account for the process of digestion, imperfect as it was, under these circumstances? There is but one mode of explaining this,—by investing the duodenum with the capability of *chymification*, or some equivalent, however imperfect, for this process. I think there can be little doubt, therefore, that the duodenum must have performed a double duty—that of the stomach in addition to its own, unless, indeed, we admit that the economy can dispense with *chymification*, or any equivalent substitute.

There is also another singularity in the history of this case worthy of remark—the commencement, progress, and ultimate advance of the disease, without the appearance of symptoms, or any interruption of the ordinary pursuits till within a very short period of his decease. From this we may infer, that the severest forms of organic disease are not necessarily the result, nor connected with, inflammatory action, and the blanched condition, and the absence of every indication of vascularity in the structure of the stomach, would seem to preclude every idea of even chronic inflammation as contributing, or having contributed, to the effect in the present instance. The griping pains with which this patient was afflicted, especially on the operation of medicine, are easy of explanation, and are to be attributed mostly to the disturbance or motion of those hardened masses of feculent matter which had consolidated upon the cords of coagulated lymph thrown out and floating in them previous to their induration.

The remarkable sensibility of the alimentary canal to the saline aperients, and the exhaustion which supervened on their action, is another circumstance of interest. These medicines never pro-

* Through some mismanagement, or misapprehension (for we were overlooked), the contents of the gall-bladder were not preserved; and I, therefore, had not an opportunity of examining the chemical characters and constitution of this bile, as I intended.

duced evacuation of the solid contents of the canal, but only feculent semifluid discharges. The exhaustion, no doubt, resulted from the pouring out the secretions of the intestinal exhalents in great abundance, while the griping resulted from the increased activity of the peristaltic motions disturbing the hardened masses of fæces.

The gases, with which the canal was distended, present some degree of novelty in the appearance of *carburetted hydrogen*. I have once witnessed a similar case, that of a man admitted into Sir Patrick Dun's Hospital, when I was clinical clerk to Dr. Barker. This man was troubled with incessant eructations, and the discharge of enormous quantities of carburetted hydrogen, and which, on being collected and slightly purified, and put into a bladder fitted with a capillary tube, burned like a common gas light. This man had been very much addicted to the use of ardent spirits, but how far this may have influenced, directly or indirectly, remotely or immediately, the quality of the gas secreted by the vessels of the stomach and intestinal canal, I shall not pretend to say. The present patient, however, cannot be considered as under any such influence, as I understood he was always temperate, and was never addicted to excesses of any description. We have upon record unquestionable instances of spontaneous combustion, and the solution of such phenomena is still a problem. It is not difficult to conceive, that under an active secretion of carburetted hydrogen into the intestinal tube, the system might be so loaded with this combustible, or at least the materials for its rapid formation and evolution, that the flame of a candle, coming accidentally in contact with the gas coming from the mouth, might in part lead to some slight explosion, and general ignition of the animal machine;—but these are speculations inconsistent with my present purpose. The history of the case and its morbid anatomy will be sufficient to shew the great necessity of caution in both prognosis and diagnosis, for, with the exception of the *obstinacy*, there was nothing in the severity of the symptoms which would enable the most attentive, and even accurate observer, to imagine any thing like the extent of disease in the viscera, nor the disorganization of the stomach.

Chelmsford, 23d April, 1831.

CASE OF DISEASE AND ENLARGEMENT OF THE KIDNEY.

By GEORGE BENNETT,

Member of the Royal College of Surgeons in London, &c. &c.

THE case about to be related was remarkable from occurring in a child of so early an age; but the symptoms of renal affection were so very slight, as to lead to no supposition of its being the actual exciting cause of the general constitutional disturbance, and that a disease of the organ existed to such an extent. There was externally an appearance of enlargement of the liver; and it was fully expected that, on the post-mortem examination, some disease of that organ would be discovered. The result, however, proved the fallacy of that opinion. Numerous cases might be brought forward where extensive disease in one of the kidneys, and even its total loss, without any symptoms indicating such disease, existed during life, several instances of which have frequently come under my observation.—Mr. Chas. Bell observes, that “upon the subject of the sensibility of the kidney, however, we must be aware that disease, inflammation, suppuration—nay, even total wasting of the kidney, may take place, without any indication from pain, and certainly without pain referable to the part itself.”—*System of Anatomy*, vol. iii. p. 372. And our various medical journals have published numerous cases confirming the correctness of the opinion.

On the 5th of July, 1828, I was requested by a medical gentleman residing in the neighbourhood of London, to examine the body of Catherine M—, four years of age, who had died the evening preceding, after a lingering illness, which had been attended by very anomalous symptoms. On inspecting the body externally, I found it in an emaciated condition; and a swollen appearance of the region of the liver, seemed to indicate an enlargement of that organ. On an internal examination, the whole of the thoracic viscera were found perfectly healthy; but on the abdomen having been laid open, the appearance of the liver was that of enlargement, and of a rather paler colour than usual, and protruded upwards and outwards towards the diaphragm. On

a further examination, it was found to be of the natural size, and the cause of its enlarged appearance proceeded from some tumor situated underneath. On pursuing my dissection, for the purpose of ascertaining the origin of this tumor, it was found to be the right kidney, which had attained so large a size as to extend into the hepatic region, pushing the liver upwards and outwards towards the diaphragm, giving to it an appearance of enlargement which had no actual existence. On cutting into the substance of the diseased kidney, it was found to be in that state of disease termed fungus hæmatodes. Its size was enormous, particularly when the age of the child is also considered. It weighed four pounds, two ounces, avoirdupois. The left kidney was of the natural size, and had no appearance of similar disease. The parents of the child evinced much surprise when the result of the investigation was communicated to them, as, to their observation, she manifested no suffering to which any disease of that organ could be attributed; and to the medical gentlemen in attendance, the symptoms of renal disease were so very slight, as to raise no suspicion as to that being the sole cause of the constitutional suffering of the child. The result has shewn how liable we are to be deceived where renal disease exists. The remainder of the abdominal and pelvic viscera were healthy. A section of the diseased kidney was presented to Herbert Mayo, Esq., and to F. Gower, Esq. surgeon, of Kent Place, Kent Road, Surry.

London, April 25, 1831.

COLLEGE OF PHYSICIANS.

Monday, April 25th, 1831.

SIR H. HALFORD, PRESIDENT, IN THE CHAIR.

Two papers of considerable interest were read, and we were happy to perceive that both were by members of the College. This is as it should be. Gentlemen belonging to other branches of the profession, in going to these meetings, naturally expect something from their hosts in addition to tea and coffee—something in the way of mental refreshment—and it ought to be an object with the Fellows to take care that their reputation incurs no slur from any doubts either of their willingness or

ability to communicate useful information; and that, too, in the ornamental garb of classical literature.

The first paper was

On the History and Treatment of Epilepsy, by Dr. F. Hawkins.

The author began by remarking on the circumstances tending to give peculiar interest to this subject—the superstitious awe with which the ancients were wont to contemplate the disease, and its supposed production by the agency of evil spirits;—and again, the pathology of epilepsy, its affinity to other convulsive affections, and to mania. Dr. Hawkins then alluded to the descriptions given of the disease by some of the ancient writers, particularly Hippocrates and Aretæus, and quoted the lines of Lucretius, in which so vivid a picture of the unfortunate epileptic is given.

Quætiâ subitâ vi morbi sæpe coactus
Ante oculos aliquis nostros, ut fulminis ictu
Concidit, et spumas agit; ingemit, et tremitt
artus;

Desipit, extenuat nervos, torquetur, anhelat
Inconstanter, et in jactando membra fatigat.

As the violence of the epileptic paroxysm led to a belief that it was produced by supernatural agency, so the prevalence of this idea caused it to be regarded with the greater terror, and divine inspirations became connected in their minds with frantic gestures. Thus Virgil has represented his inspired prophetess as affording such visible demonstrations of the divinity that the contortions of the Sybil have become proverbial.

A more important question, connected with this subject, was next alluded to—namely, the actual nature of the demoniacal possessions mentioned in Scripture. Many have attributed these to different forms of disease, but Dr. Hawkins observed that he could not see how any one, who believed them to have been recorded by competent witnesses, themselves incapable of deceiving others, could doubt that the possession of evil spirits was in some instances real.

In speaking of the physical condition of the brain and nervous system, the author, after alluding to the opinion that apoplexy depends on pressure and epilepsy on irritation, and shewing its general correctness, though it cannot be regarded by any means as the *whole* truth, proceeded to inquire into the state of the circulation, particularly as

regards the fulness or exhaustion of the vessels. In both of these, he observed, apoplexy and epilepsy have severally been known to occur. The absolute quantity of blood in the brain is, indeed, subject to comparatively little variation, owing to the peculiar circumstances in which it is placed removing it from the immediate influence of atmospheric pressure; yet the relative proportions of arterial and venous fluid within the cranium may vary very much; and, without entering into detail, it may be remarked that the various changes in the cerebral circulation are unquestionably the sources of numerous nervous affections; while, on the other hand, impressions on the nerves, even of distant parts, are capable of disturbing the balance of circulation within the head.

The relation between the state of the brain in sleep and that which disposes to epilepsy, was next adverted to, and the general effects of different changes in the cerebral circulation illustrated by reference to the watchfulness produced by certain fevers, mental exertions, &c. on the one hand, and the somnolency which, on the other hand, results from extreme cold, excessive depletion, and some other causes acting upon the cerebral vessels. The author, reasoning upon these facts and the disclosures of post-mortem examinations, proceeded to the inference that the circulation in the brain was generally disturbed in epilepsy; such disturbance consisting either in the vascular action being over-excited, or in the due supply of blood being withheld.

These alterations in the cerebral circulation, be they what they may which give rise to epilepsy, are apparently similar in kind, though different in degree, from those productive of other forms of nervous disorder—a position which the author fortified by gathering around it instances of the mutual conversion of such diseases into each other. Thus epilepsy is associated with madness, apoplexy, and paralysis; while chorea, hysteria, and catalepsy, gradually ascend towards epilepsy.

The next point which arrested our attention was with regard to the treatment. During the actual paroxysm, Dr. Hawkins stated that he had, in more than one instance, witnessed the efficacy of “filling the patient’s mouth with common salt,” in arresting the convul-

sions and restoring sensibility. To this temporary relief, however, its effects were always limited. Among the means adopted with a view to more lasting benefit, Dr. Hawkins (in addition to purgatives and local depletion, &c.) spoke very favourably of the permanent drain effected by a seton, or issue. But besides these attempts to change the mode of circulation, well-directed efforts to diminish the nervous susceptibility must not be omitted. For this purpose tonics are the most efficient means; and of these Dr. Hawkins has found oxide of zinc and sulphate of copper the best; the former he uses combined with extract of conium, and the latter he recommends to be given in doses of a quarter of a grain with a scruple of cinchona, or from two to three grains of sulphate of quina. It is to this last (*i. e.* the copper thus combined) that the author particularly directed the attention of his hearers, and strengthened his recommendation by mentioning that he was authorized by one “of the most experienced and accomplished physicians of this or any age,” to state that he has generally found it sufficient for the cure; indeed, that he “has scarcely known it to fail” in cases not dependent upon organic disease of the brain.

The above was followed by—

*Some Observations upon Land Scurvy,
by Dr. Macmichael.*

During the summer of 1830, cases of land scurvy were exceedingly prevalent at the Middlesex Hospital, and some of them were so severe as to prove fatal. It was stated by the friends of one patient, that he had brought up half a pailful of blood; and his appearance, Dr. Macmichael observes, might almost have justified this description. His body and limbs were covered with purple spots, and on the inside of the mouth were a number of livid tumors, still pouring out blood. These tumors were described by Dr. Watson, under whose care the patient was, as having been formed by the extravasation of blood beneath the lining membrane into the cellular texture. They resembled hæmorrhoids that had burst, or small masses of fungus hæmatodes. This case did well; but in another, not apparently so severe, the patient died, and, on examination after death, the inner surface of the colon was found to

be covered over with the same kind of livid tumors as those above described. The parts were preserved, and are now in the Museum of the College.

To this affection the author prefers applying the name of *land scurvy*, rather than *purpura hæmorrhagica*, because the disease seemed to be essentially the same as that described by Sydenham under the name *scorbutus*. The admission of numerous cases of this description into the hospital naturally directed the attention of Dr. Macmichael and his colleagues to the subject. Two cases of typhus fever, with petechiæ, and both of which ended fatally also, occurred at this time; and there was noticed an unusual tendency to erysipelas whenever any external applications, such as leeches, blisters, &c. were made to the skin. Among the other cases which excited interest was one of sea scurvy, in a sailor, who was found on inquiry formerly to have laboured under the disease, in a severe form, during a voyage in the South Seas, on which occasion he attributed his cure to being buried up to the neck in the earth,—a method of treatment practised upon himself and fellow-sufferers at Otaheite. As, however, they enjoyed the benefit, at the same time, of abundance of fresh vegetables, much need not be placed to the credit of the sand.

In former times, these cases would have been described as depending upon laxity of the solids, and putrescency of the fluids; but, added Dr. Macmichael, "it requires some courage, in these days of modern refinement and reputed discovery, to employ such expressions; for now, it seems that any reference to the long-established truths of the science of physic, and any use, however cautious, of the former acknowledged pathology of medicine, is stigmatised as the garrulity of old age." The author, nevertheless, proceeded to point out some circumstances which appeared to him worthy of notice, "even at the risk of exposing himself to similar imputations."

In Dr. Watson's case, the account was that the patient had greatly injured his constitution by being compelled to live low during a twelvemonth before the attack, and by drinking two or three glasses of gin daily for half of that period: this practice had latterly been abandoned, but on taking a glass of gin the day before his admission, he had

found his mouth suddenly filled with blood, after which the other symptoms speedily came on.

In the fatal case, the patient was a Paddington stage-coachman, and, it is almost unnecessary to add, of very intemperate habits; and, in a case recorded in the Medical Gazette, and treated by Dr. Latham, the attack came on after exposure to cold during a journey. He was bled and purged freely, with a favourable result. Dr. Watson's patient also was bled; and a boy, admitted for scurvy under the care of Dr. Hawkins, was bled, and had calomel and opium: here, too, the disease was cured.

The principal point of inquiry with the author was, whether there had been any thing peculiar in the constitution of the air, during the summer of 1830, to account for the production of the depraved state of habit which appears to be connected with these scorbutic affections. The same spirit of civilization, he observed, which had led to the construction of sewers, the widening of streets, and similar improvements, had greatly tended to lessen the mortality of many diseases, and to make some almost unknown to us. The first twenty years, during which bills of mortality were kept (from 1657 to 1677), give an average of sixty deaths annually: from this time they gradually diminished, and Dr. Herberden, in a paper published in 1807, says, that during ten years he had been physician to St. George's Hospital, only three cases of scurvy had been admitted; and the learned physician above-mentioned had remarked, that "whenever people live in a moist and tainted atmosphere, if at the same time they have not a sufficient supply of fresh and nutritive aliment, they will be liable to this disease."

Humidity has been particularly mentioned by various writers. La Perouse especially attributes much of his success, in guarding against scurvy, to the pains he took in keeping the vessel dry by fumigations and braziers of burning coals. Captain Parry also attributes the first case of scurvy which was met with, in one of the Polar expeditions, to damp. In accordance with this idea, it was observed at the Penitentiary at Milbank, during the scorbutic disease which prevailed there some years ago, that the prisoners who were employed about the kitchen almost invariably escaped, an immunity which, Dr. Macmichael thinks,

ought to be "in a great measure" ascribed to the warmth and dryness of these apartments.

Capt. King, of the Royal navy, has also communicated to Dr. Macmichael some interesting observations made on a voyage to the southern coast of America, from which he has just returned. His Majesty's ships, *Adventurer* and *Beagle*, left England in May 1826, and the crews remained quite healthy till March 1827, nor was it till May that the scurvy began to make its appearance, and even then it was comparatively mild. In June there occurred a remarkable depression of the barometer, accompanied by a cold moist state of the atmosphere. From this time the scurvy got much worse, and after struggling against it till August, they left the Strait of Magellan, where they had been, and made for Monte Video. In less than a week, the disease was effectually cured by the use of oranges. "As the crew were plentifully supplied with lemon juice and sugar, had two fresh meals every week from the preserved meats, besides a daily portion of cranberries or pickles, fish, wild fowl, and wild celery, it does not appear that the disease could have been caused by the provisions. "I can only account for the scurvy," adds Capt. King, "from the excessive moisture of the climate." A curious illustration of the effect of depression of spirits was also given by Dr. Macmichael's intelligent correspondent. Observing the despondency of his crew, he gave an order "to sway the topmasts up, and prepare the ship for sea;" and this simple indication of removing from their anchorage, and changing their quarters, produced so exhilarating an effect, that Capt. King at first thought the bare idea of change would be sufficient; but when the men found that the intention of moving was dropped, they relapsed again, and it became necessary actually to get the vessel under weigh.

The summer of 1830 was remarkable for the quantity of rain which fell, being more than double that of 1827, the season during which ague was almost epidemic in London, and the weather was otherwise close and oppressive.

Having brought together the facts above detailed, Dr. Macmichael left it for others to say whether they did not warrant the inference, that moisture had as much to do in the production of scurvy, as impoverished diet and salt

provisions. In conclusion he stated, that the treatment adopted by Sydenham, in the disease to which he gives the name of scorbutus, resembled that now had recourse to in purpura hæmorrhagica, as closely as his description of the symptoms. His plan was, to take ʒviij. of blood from the arm, followed up next morning by a purgative, which was twice repeated, at intervals of three days, the cure being completed by a diet drink, consisting of infusions of various plants, and to which the name of "Brunswick Mum" was given.

The learned author of the paper, in conclusion, expressed his regret that the works of the older authors were so little consulted, since, said he, "it is more than probable that the complaint, of which I have been treating, will not be found a solitary instance of new names given to old diseases, and methods of cure ascribed as novel, which will turn out to be only the unacknowledged revival of some forgotten piece of therapeutics."

ROYAL INSTITUTION*.

Friday, April 22, 1831.

GEORGE MOORE, Esq. F.S.A. VICE-PRÆS.
IN THE CHAIR.

Mr. Marshall on Vaccination.

THE question proposed for this evening's consideration is one of the utmost interest and importance; and as we understood that it was intended to explain in a popular way the extent to which vaccination has been carried, the benefits which have been derived from its introduction, and the probable causes of its occasional failures, as well as to shew that many of the reputed cases of small pox after cow pox are rather attributable to erroneous observation, or to imperfect vaccination, than to any positive or comparative inefficiency in its protective influence, we took our seat in the theatre with our expectation raised, and with a determination to bring away matter for a longer report than we usually indulge in on subjects not so strictly within our sphere as this purely medical topic.

We are, however, unwillingly obliged to confess, that we were doomed to meet with a most grievous disappoint-

* Erratum, p. 124, line 37, for "Michell," read "Mitscherlich."

ment—a kind of Tantalus-like torture, in which our eyes were witness that information was flowing from the lecturer's mouth, but which was destined never to reach our ears. It was not, therefore, with the matter (for of its value we had no means of judging), but with the manner in which it was delivered, that we were disappointed.—Something, certainly, was said, which occupied about 45 minutes in delivery, but what that something was, we know not; of its purport, we could only guess by some occasional words that reached us; of its general tenor, we were therefore almost as ignorant at its conclusion as at its commencement. We are far from wishing to say any thing which could be unpleasant to those who on these occasions come voluntarily forward and furnish the literary course of these evening entertainments; but if from habit, age, or natural imperfection, the voice of the contributor is insufficient to fill so large a theatre, or his articulation so indistinct as not to be listened to without pain, it would be much better to borrow another person's mouth and lungs, and thus to read by proxy, than by an impotent attempt at self-perusal, to render an essay (probably of great value) if not wholly inaudible, at least utterly unintelligible—a consummation to be wished neither by the lecturer nor the lectured. We cannot do better than conclude these remarks, which we make with reluctance, than by offering, as a piece of most wholesome admonition, an epigrammatic observation which we heard fall from a gentleman in the theatre, viz. that “*That the first object of a lecturer should be, to be heard; the second, to be understood.*”

The chief attraction in the library was Aala, a little Polynesian girl, brought by Mr. Bennett, surgeon of the Sophia, from the island of Aramanga, one of the New Hebrides. She seems an intelligent child, and may be considered fortunate in having been saved from the cannibal jaws of a hostile tribe, who, having captured her and five others, were going to eat them. The nose, and some of the features of the child, who seems about nine years old, are decidedly of the negro cast; her hair is likewise woolly and curly, but of a light hue; and this is a curious circumstance, as most of the South Sea islanders are known to have long straight dark hair; and it will be

a problem to decide how and when an emigration took place from Africa to Polynesia. Many other natural curiosities were also placed upon the table along with Aala, brought by Mr. Bennett from the South Seas, such as arms of offence and defence, ornaments, domestic instruments, &c. &c.; and we also noticed a section of that very curious plant, the *Xanthorrhoea Australis*, whence is derived the gum *acaroides*.

On Friday, 29th April, Mr. Faraday gave some further account of Mr. Trevylian's experiments, alluded to in our last report. We shall give an account of these in our next number.

MEDICAL GAZETTE.

Saturday, May 7, 1831.

“*Licet omnibus, licet etiam mihi, dignitatem Artis Medicæ tueri; potestas modo veniendi in publicum sit, dicendi periculum non recuso.*”—CICERO.

LONDON UNIVERSITY.

THE great length of the lectures, and other papers, in our present number, added to the sudden arrival of the account of the “Entertainment” on Wednesday last (see next page), has scarcely left a line for editorial remarks on any subject. We must for the present, therefore, content ourselves with directing attention to the valedictory address of Dr. Conolly on bidding adieu to the London University. Recent events have shaken to its very centre that institution, and threaten to blight all the hopes afforded by its early promise. The session which has closed has indeed been a stormy one; and Council, and Professors, and Pupils, have been involved in one general turmoil. Mr. Bell, the only one among the teachers whose name was calculated to carry the fame of the school to foreign shores, resigned some time ago in disgust. Dr. Conolly, whose attainments as a writer, those acquainted with his published lectures (see Gazette, October 3d, and May 7th), or with his work on insanity, must acknowledge to be of no mean description, has followed in the

list of seceders. Mr. Bennett, by far the most popular of those who remained, and undoubtedly the main prop of the medical school, has sunk lamented into an early grave. Mr. Horner, the warden—he too has relinquished his appointment; and rumour says that others are to go. No accidental circumstances can have produced such a succession of resignations: there must be "something rotten in the state"—something wholly and radically wrong, to account for all this. Neither time nor space will serve us to enlarge upon the subject at present; but this we will say—the Council have an arduous and most responsible task to fulfil, and we fear their past conduct gives little to hope from their future discretion; they have talked instead of acting; they have fostered disturbances by failing to check them; they have lessened the respectability of some by withholding their support, and have supported others whom they ought to have discarded. We greatly doubt the fitness of such an assembly to govern a great public seminary. Scripture tells us, that "in the multitude of counsellors there is safety;" and we are bound to believe that it is so; but the Council of the London University have afforded a tolerably convincing proof that there may be a multitude of counsellors without much wisdom. What could be more preposterous, for example, than to come to a resolution, as they recently did, that it was not expedient to fill up the vacant Professorships of Physiology and Medicine—but that temporary lecturers should be appointed? as if any man, who had the smallest share of reputation to lose, would hazard it on so precarious a venture. This very uninviting offer was made to Dr. Watson, who very properly declined it; and we presume none of those whose names have been mentioned as candidates would do otherwise. The resolution is absurd, and it is obvious that it must be rescinded.

COLLEGE OF SURGEONS v. WAKLEY AND CO.

As Wakley would not "show fight," the Council of the College of Surgeons determined that he should not be suffered to slink out of the business, as he evidently wished to do; and for this purpose, after waiting some weeks in vain for his threatened action, they have applied to the Court of King's Bench, and obtained a rule *Nisi*, for criminal informations against him and his *confrères*, Messrs. King, Walker, and Dermott. As the Council were only desirous to have the question brought fairly into a court of law, we understand that they did not intend to have taken any steps had Wakley kept his word, by prosecuting the police officers; but as it became evident, from the time allowed to elapse, that there was no serious intention of doing so, they determined to take the lead; and the profession will thus, at last, have the satisfaction of having the question of law determined. We have no doubt of the decision being in favour of the Council; but we hope Sir James Scarlett will be better acquainted with the merits of the case before he comes to argue it, for in applying for a rule the other day he missed the most important point of all, namely—that the Council are compelled by the terms of a parliamentary grant to have certain lectures delivered. By the way, we were much amused to learn, that within a day or two after the Council had commenced their proceedings, Wakley gave orders for instituting a counter-action against the Bow-Street officer. For such a boaster, he has been marvellously reluctant to "come to the scratch."

MORE "ENTERTAINMENT" AT THE CROWN AND ANCHOR.

"Grand Convocation" of the Collegium Wakleyanum.

THE usual handful of agitators were gathered round Wakley on Wednesday night, and formed the nucleus of a very select body which filled the upper end of one of the rooms in the tavern in the Strand. The supineness of people about this vast city is monstrous; even after a fortnight's regular advertising,

there could not be above a few dozen listeners got together to hear what the founder and fellows of the Collegium had to say for themselves after their late deep meditations. And what was still more provoking—indeed the unkindest cut of all—their former chairman could not be induced to come forward once again—he left them in the lurch, rattled or reformed, whichever it may be called. But we must report this affair with more minuteness. The "convocation" was advertised for 8 precisely, "Joseph Hume, Esq. late M. P. for Middlesex, to take the chair." We wished to be punctual—so we entered the tavern at the time appointed, but saw no sign whatever of a great thing going on: this, surely, was odd enough. At the foot of the stairs a man met us, and asked if we wished to go up to Mr. Wakley. On replying in the affirmative, we were directed to ascend to the second floor, and there we saw, not Wakley, but a few persons huddled together at the end of the hall. The time now was passing, and the invited public were growing alarmingly impatient, when the grand convoker at length made his appearance, but it was in a subdued and piteous plight: no Joseph was forthcoming, and a mere paltry group of spectators was assembled before him. He implored them, however, to think nothing of this: "his friend, Mr. Hume, would certainly be among them in a very few minutes;—he was the most punctual man in existence."

Somebody said that the hon. member had calculated on being present, but had made some singular mistake in his reckoning. (Laughter).

The chair was now regularly sent a begging. After much putting of heads together, it was resolved to place some respectable man, if such a one could be found, in the chair: it was offered to a general practitioner, "and a most respectable one," in the person of Mr. Rodgers—who peremptorily declined the honour. (A pause). Then poor old Mr. Staunton was fixed on—just as he was before at the College of Surgeons on the day of the riot—but as he acted on that day, so did he now: he would have nothing to do with it. (Another long pause—no Joseph). At length a Mr. Prosser, or Proctor, condescended to preside.

Mr. Waller proposed the first resolution—that the labours of the Committee should now be supervised—and he proceeded to observe, that nothing could be better than to have a new College of their own, in the lecture-room of which, if it so pleased them, they might have as much noise and riot as they wished, without being controlled by a governing body of £1 (cheers.) He complained of the commencement of proceedings at law on the part of the College. It was a very hard case! (applause.)

Mr. Dermott rose to second the last speaker, and gave the richest specimen of rigmarole we have heard for a long time. Our memory, however, is a little troubled by the task of endeavouring to recover his good things, with their proper "concatenation accordingly." There was one claptrap, we remember, about the king, that produced some plaudits; but the learned speaker, wishing to make more of it, as usually happens on these occasions, took nothing by his motion. His digressions and eccentricities now began to thicken beyond all belief—cries of "chair, chair," and "question, question," assailed him on all sides—when, at last, down he sat. Judging from the gesticulations of Mr. Dermott, we should say that he spoke out of the fulness of some other organ than his heart: his tongue certainly did not proceed trippingly in its office, or express one half of what he had to say, but his action was undoubtedly rich. He, too, complained of the pending prosecution; and took a newspaper from his pocket to read an extract—but forgetfulness marked him for her own during the evening.

Dr. O'Shaughnessy (Professor of something—Medical Jurisprudence, we believe, in the College that is to be,) now rose to read the Report. It consisted of a series of resolutions relating to the new foundation—the government to be vested in a Chancellor (Wakley, of course), a Vice-Chancellor, and thirty-six Fellows—the *elite* of Wakley's corps—every species of dub to be welcome just now—nothing to come amiss to their net—terms, tempting and moderate—a doctor's bonnet for from three to five guineas. Professor O'Shaughnessy, in conclusion, gave a pathetic narrative *de se*, and of his motives for joining in the scheme of the Collegium Wakleyanum. "Albeit unused to the melting mood," we could not hear his little story without the commiseration which it solicited, and as we have no wish to treat the young gentleman any otherwise than well, we will give the publicity of our journal to what he said. "He is a graduate of Edinburgh, (he informs us), compelled by circumstances to come to settle in London: as things are at present constituted here, however, he has found that his degree stands him in but little stead: he cannot practise as a physician, for he thus becomes liable to the penalty; he is not a surgeon; and if he practise as an apothecary, he has the fate of his friend Ryan before his eyes." Now all this is very true—and pity 'tis 'tis true; but we cannot help suggesting that Dr. O'Shaughnessy should not have come to London upon any account in so lamentable a state of ignorance.

Dr. Epps, in moving that the report be received and adopted, poured out a strain of his peculiarly eloquent abuse on the College of Physicians. It was founded by Henry

the Eighth—what good could come of any college founded by such a man? No man can become a Fellow of that College unless he first swear to the thirty-nine articles—(cheers). A paradox which the Doctor explained by pointing out the regulation which reserves fellowships for graduates of Cambridge and Oxford. Many other striking things of this sort were uttered by Dr. Epps, who was followed by

Mr. Walker.—The prosecution just commenced by the College was the principal theme of this gentleman's oration: we cannot devote all the space we should wish to it, but hasten to the crack orator of the evening.

Mr. King at length arose, and after describing himself as a beauty who, when unadorned, is adorned the most, proceeded to read a resolution which, he said, had been just put into his hands. It was to the effect that now was the time for practitioners and others to rush forward to assist the scheme of the Collegium Wakleyanum, with heart and hand, and with purse—(murmurs through the assembly). If they did not, he (*Mr. King*) could not be expected any longer to labour in the business: if they deserted him, he would desert them. But this, he trusted, would never happen: in less than three months he predicted there would be six or seven thousand names enrolled as members. There is to be an hospital—an hospital of a peculiar description—connected with the Collegium Wakleyanum, as soon as funds will admit of it. In this hospital, though the regular officers have their special duties, yet it will be in the power of every member to treat his own patients, and to operate upon them; and as he (*Mr. King*) has had great practice in that way, he should be always happy to superintend the operations, to secure vessels, and so forth—(laughter and hisses). He was perfectly indifferent to these marks of their pleasure or displeasure—he spoke purely from his feelings and immediate impressions (laying his hand gracefully on his bosom). The burthen of the accomplished gentleman's oration then turned upon the late riot in the College of Surgeons; on which occasion he maintained that he and *Mr. Wakley* were expelled *unprofessionally*; that little short of an attempt on the lives of the members had been made by the inhuman twenty-one; which body had, moreover, now entered the arena against him with criminal law proceedings. "For his part (as the orator said, with great vehemence), when he forgot this conduct of theirs—this cruel and bloody conduct—might God forget him!" In conclusion, he wished the meeting a *very good evening*—(cheers and laughter).

It was now half-past ten o'clock, and our

patience could endure the scene no longer; so we resolved to follow *Mr. King's* example, and took that opportunity of bidding good night to the "grand convocation."

REPORTS OF CASES OCCURRING AT PUBLIC INSTITUTIONS.

ROYAL INFIRMARY, GLASGOW.

To the Editor of the London Medical Gazette.

SIR,

I SEND you the report of the two following very interesting cases, which have occurred at the Royal Infirmary of this city, and daring my father's clinical attendance in the house; concluding that the interest they have excited here may be extended to the readers of the Medical Gazette.

I am, sir,

Your obedient humble servant,

DAVID BADHAM.

Glasgow College, May 1, 1831.

CASE I.—*Ascites, consequent upon Hypertrophy, with Dilatation of the right Auricle; the latter unattended with Pulsation of the Jugular Veins.*

Of this case it will be sufficient to observe, that an old man of 75, who was so far from being of a cachectic constitution that he never had been conscious of a day's illness, and who still retained on admission a florid countenance, with a firm and equal pulse, came under our care with a general dropsy of two months' duration, under which he gradually sunk exhausted about two months after admission. During the latter period of his life frequent opportunities occurred of examining the thorax with the stethoscope, by which it was ascertained that the right side of the heart was extensively dilated; but from the vast quantity of hydropic fluid contained in the abdomen, it was not easy to predict whether it would be found complicated with thickening of parietes of either ventricle. In cases where the right side of the heart has been dilated, my attention has always been directed to the state of the jugular veins, which in this instance certainly did not exhibit any pulsation whatever. On opening the body, twenty-four hours after death, the change of structure previously indicated by the stethoscope became sufficiently obvious, together with other appearances, concerning which I shall not undertake to say how far they may have contributed to the product of one of the most formidable and universal dropsies that could be seen. Not only was the right auricle enlarged to twice its natural capacity, and

thickened, and the ventricle of the same side moderately dilated, but the left auricle was found similarly affected with the right, and to the same extent. There was no valvular disease, or narrowing of any of the cardiac orifices; and the left ventricle was quite healthy. One lung was compressed by a quantity of effused fluid; the liver was slightly tuberculated. The inspection of this case appears to me to be interesting in more points than one: in the first place, it certainly impugns the accuracy of what has lately been adopted as a pathological fact, that active aneurism of the right auricle is attended with jugular pulsation—a point the more worth insisting on as Dr. Graves, in one of his able papers published some time ago in your Gazette, seems to consider the co-existence of these two appearances as certain; secondly, dilatation of the auricles, according to Laennec, is a rare disease; but the rareness of its occurrence constitutes by no means the only claim of this case to our attention, for it has been affirmed by the French writer, that the dilatation of the auricle is almost certain to be confounded, in stethoscopic observations, with disease of the corresponding ventricle, or of the valves, of which, he says, it is the consequence.—Now in the present case, one ventricle was perfectly healthy, the auriculo-ventricular orifice natural, and yet there was extensive dilatation of the corresponding auricle. Neither was the slight dilatation of the right ventricle at all sufficient to explain the extent of aneurism of the auricle of that side; nor is it easy, lastly, to conceive in what manner disease of the heart confined to the auricles, or nearly so, can be regarded as an organic cause of dropsy. The liver was too slightly diseased to afford any possible suspicion that it might have induced this complaint.

We are plainly in considerable difficulty respecting the pathology of dropsy. That there are a great number of cases in which the action of the exhalants is of the nature of inflammation, is quite certain. Six or seven cases, at least, of this character have been treated by my father this winter (all of them in young people), and in every instance successfully, by a practice founded on this view of the subject. The exciting causes of these dropsies have been in every instance cold and wet conjointly, never mere cold.—One person, for instance, became dropsical by falling into the canal, another by the flooding of a cellar in which he lay, a third by drenching with rain; and the parties were all too young to have suffered any injury by the abuse of spirits; in all, too, the urine abounded with coagulable matter. They were cured by venesection, cold lotions to the distended extremities, and infusion of digitalis; nor did the time occupied by the treatment often exceed a fortnight, however

great the swelling may have been; neither were these cases of mere effusion into the cellular membrane; the cavity of the abdomen was distended in the greater number.

In the present state of our knowledge on this important disease, however much we may congratulate ourselves upon its improvement, no line of pathologic reasoning will explain all cases of dropsy; for if a peculiar action, not very dissimilar to inflammation, be accepted as sufficient to explain perhaps a very considerable number of cases, it is yet very difficult to understand this modification of the phlogistic diathesis; and in the other set of causes, organic ones, supposed to act like ligatures on the venous circulation, if this mechanical result seems to be made out in some instances, there are others, like the present, in which their application is very doubtful—perhaps a passive state of disease in the vessels which supply the natural humectation of cavities—must also be admitted as a third circumstance in the history of dropsy.

CASE II.—An apparent Anomaly in the seat of the Heart's Action during Life, explained after Death, &c. &c.

A young man, aged 25, came in three months ago with cough and expectoration; his sputa were of that pituitary character which excited but moderate apprehension for his safety; the symptoms of threatened phthisis were by no means strongly pronounced; his strength, however, soon began to decline; he lost flesh, had hectic flushings, profuse sweats, a quick pulse, great thirst, and the sputa by degrees became decidedly purulent. Dr. Young's test for pus was had recourse to, and at first without any results; but on repeating the experiment, a short time before he died, concentric circles of prismatic colours became apparent.

I had had repeated occasion to observe, on applying the cylinder to the chest, "that the heart's pulsations were very distinct at the upper part of the thorax, and less so in the præcordial region; and yet, from the absence of all other signs, I was satisfied that there was no dilatation. The thorax was scarcely opened when the explanation of this apparent anomaly was afforded. The liver was enormously enlarged, stretching quite over the left hypochondrium, and so moulded into the hollow diaphragm as greatly to diminish the capacity of the thorax, by pushing up before it the heart and lungs. The lungs were found almost universally diseased; the right, particularly, was so filled with excavations, which opened into each other by fistulous connexions, that it was impossible for the patient to have drawn air into it, so as to answer any of the ends of respiration: the left lung was also much diseased, being filled at the upper part with tubercles, in different stages of maturation, and the lower

lobe only entirely permeable to air, and of sound structure.

Now a very remarkable observation in this case is, that the patient lay with his head low, and never suffered from shortness of breath. My father had, indeed, called the attention of the pupils to a fact sufficiently known to all practitioners, that it is impossible to predict the extent of lesion in almost any organ by the amount of its functional derangement, and particularly so in the case of the lungs, which, in disease, seldom afford any certain conclusion as to the extent of their disorganization, whether under the most acute or any of the chronic forms of the widely dissimilar affections to which they are subject. But, notwithstanding this caution, I may say, that to the most experienced practitioner it could not but have been matter of extreme surprise to find, that in a disease, in which not only dyspnoea had never been a prominent symptom, but in which it was scarcely a symptom at all, that not more than one-sixth part of the organ of respiration retained its original integrity. But if, on the one hand, our patient escaped this, the most terrible consequence of diseased lung, he had another symptom, that far surpassed in violence the experience of any who heard it, his cough being of the most pertinacious and *successive* character: from this symptom, during his whole long illness, he had seldom respite for many minutes; nor did it appear to be in the slightest degree under the control of the remedies successively administered for that purpose,—opium, conium, belladonna, and prussic acid, were all pushed to the greatest extent, without the slightest alleviation. He probably expectorated, for two months before his death, half a pound of matter daily, which was in no instance, notwithstanding the rapid destruction of the respiratory organs, ever observed to be tinged with blood. I cannot forbear closing this paper with the following reflection, suggested very much by the case I have been describing, but admitting of extensive application in that class of diseases of which the present is but an example:—If physiologists are correct in stating that oxygen is the source of animal temperature, which will be found to vary, in different animals, in the direct ratio of the capacity of the lungs, and the quantity of that element inhaled; how, we would ask, was so vast an obliteration of air-cells, as here occurred, compatible with intense hectic and profuse perspirations? the fact of those profuse perspirations will fully meet an objection which may be thought at once an answer to this question, and a confirmation of the chemical theory of animal heat; the objection I allude to and anticipate is this, that in talking of the temperature of animals, we must remember that this will depend upon two operating principles jointly,—the actual

power inherent in the animal of generating, caloric being one, and the state of the body in retaining caloric the other: in other words, that animal temperature is maintained by the balance of two opposite powers, the one producing and the other expending this principle. It may accordingly be said, and plausibly enough, that owing to the dry state of the skin in fever, the greater part of the additional heat observed depends upon diminished evaporation, and not increased generation; in confirmation of which it is alleged, that individuals in this state are sometimes highly susceptible to cold. But this will not explain the redundancy of heat in the case before us, where an almost constant sweat was conjoined to an almost constant hectic, which could not but have necessarily prevented any accumulation from taking place.

BOTANY.

To the Editor of the London Medical Gazette.

SIR,

DURING a visit to Sydney, New South Wales, in February 1829, walking over the Botanic Garden established there, (which is creditable to the colony, and the gentleman under whose charge it is placed) I observed a tree, a species of eucalyptus, the leaves of which, on being rubbed on the hand, yielded a quantity of oil, of a powerful but not unpleasant smell, seemingly possessed of stimulating properties, and resembled much that known by the name of cajuput oil, which is procured from the leaves of the *melaleuca leucodendron*, by distillation. The tree, I understood, was not found in the vicinity of Sydney, but had been brought from the interior. This oil would no doubt be found, if extracted, possessed of valuable medicinal properties, and if so would prove an acquisition to the colony as an article of commerce. My sole object in sending this brief notice for insertion in your valuable weekly publication, is for the purpose of endeavouring to excite the attention of the scientific gentlemen resident in the colony who may have opportunities of giving an accurate botanical description of the tree, as well as of extracting and proving by actual practice its medicinal properties.—I remain, sir, yours, &c.

GEORGE BENNETT,

M.R.C.S. and Corr. Mem. of
the Medico-Botanical Society of London, &c.

London, April 30th, 1831.

NOTICES.

Dr. Ramadge's communication was received too late for insertion in the present number.

Mr. Lizars' letter in our next.

W. WILSON, Printer, 87, Skinner-Street, London.

THE LONDON MEDICAL GAZETTE,

BEING A
WEEKLY JOURNAL

OF
Medicine and the Collateral Sciences.

SATURDAY, MAY 14, 1831.

LECTURES

ON

MEDICAL JURISPRUDENCE,

Delivered in the University of London,

By PROFESSOR AMOS.

POLICIES OF LIFE ASSURANCE—PUBLIC NUISANCES.

*Curious Case of Survivorship determined by the
formation of Adipocire—Life Assurances—
how avoided—Cases—Public Nuisances—
Danger of Contagion—Selling unwholesome
Food—Mixing Drugs in Ale, Beer, and Porter.*

GENTLEMEN,—I shall commence my lecture this evening by an illustration or two of the subjects we have before considered. I mentioned in my last lecture a remarkable case of survivorship, where the question was, whether a person of the name of Meecham, who was found dead in a river several weeks after quitting his house, had drowned himself before, or whether he had drowned himself after the date of a commission of bankruptcy, which was taken out within a day or two of his being missed. This case occurred in the year 1805. I have procured one of the original briefs delivered to counsel on the occasion.

It appears from this brief, that Meecham's body was found five weeks and four days subsequently to the day he left his home, in the river at Perry Bridge, three miles from Birmingham, at which town he lived. The body was found floating, but the posteriors only were visible, the head and feet being submerged. On being taken out, the face was covered with a muddy slime. The body was found on a Wednesday, and a Coroner's inquest sat on the next Saturday. On the Friday, three medical men examined the body, with a view to ascertain whether any change had taken place in it which might

justify an opinion as to the time it had been in the water. The brief says, that they found on dissection of the lower part of the abdomen, and the glutei muscles, that the red muscular parts were converted into a fatty substance, very much resembling suet. The face was completely disfigured by putrefaction. The hair of the head separated from the scalp by a slight pull. The other parts of the body were firm and white, without any putrefactive appearance. The clothes externally seemed unchanged in any way; but his shirt and neckcloth were so rotten as to be torn by the slightest force—the neckcloth even by untying it.

I shall not detain you with the legal presumptions of the case, as distinguished from the medico-legal. I shall only observe, that in Meecham's pockets were found between fifteen or sixteen pounds, and his wife's bracelets; and the circumstance of his wife's bracelets being found upon him, was relied upon as shewing that he left home originally with an intention of absconding, and not of destroying himself. But I proceed to what the brief contains with regard to the medical evidence:—

“When the medical witnesses, particularly Mr. Tomlinson and Mr. Blount, are called, the following questions may be proposed to them, in addition to any others that may occur at the moment:

“Whether it was not on the Saturday that they first saw the body? Whether it was not probable that a considerable change had taken place in the body since it was first taken out of the water; and therefore whether they can speak so determinately as though they had seen the body on the first day? Whether they made any incision in the body, and noticed any particular appearances? Whether it was by day-light or candle light that they examined the body? Whether they had ever heard that animal muscle was capable of being converted into a substance similar to spermaceti, when exposed to running water? From what sources they obtained this information? What

length of time is generally thought necessary to produce such effect? What is the composition of animal muscle? Whether this substance, when deprived of the vital principle and exposed to atmospheric air, is not always readily putrefied; and how soon this effect takes place under common circumstances? What is the effect of putrefaction? What new substances are formed, and how? Whether there is not a material difference in the decomposition of animal muscle when exposed to running water, and to that exposed to atmospheric air; and why? What are the component parts of the substance produced by the conversion of animal muscle exposed to water? Having thus obtained the composition of animal muscle, and the substance resulting from the decomposition of animal muscle in water, they may be called upon to state what decompositions and recompositions take place in this process? Whether they have made any experiments upon this subject themselves? If they answer in the affirmative, then let them state the precise circumstances of the experiments. If they have not made any experiments, how comes it that they think themselves authorized in opposing opinions which are the result of actual experiments? Whether the body exhibited appearances which might induce them to think that it had not been in water the whole of the time insisted upon by the plaintiff?

"If the defendant's counsel, in their cross-examination of the medical gentlemen appearing on the part of the plaintiff, should lay much stress upon the difference exhibited in the appearance of the head and the body of the deceased, these gentlemen should also be called upon to account for such appearances.

"Whether they have ever seen animal matter in a progressive state of conversion into the adipocere substance? Whether they have ever seen any substance of similar appearance to the one produced to them? Whether a substance exhibiting the appearances which the substance in question does, could not have been in the water upwards of five weeks? Whether it is not probable that the substance in question has been in the water that length of time? Whether, in nosology, appearances are not the criterion or principal aid by which specific disease is determined? Having, therefore, seen the substance in question, but not having seen, at any other time, any substance analogous to the one produced, and not having actual experience of the appearances and other circumstances of the progressive change of animal matter into adipocere, can you undertake to determine that those who have had actual experience, and have noticed with the nicest observation the gradual conversion of innumerable animal substances into adipocere—can you determine that such individuals

cannot speak decisively, even from the appearances of the animal matter in question, that it has been subject to the action of the water for a certain time; or can you deny that the experiments which these gentlemen have been able to make upon the substance in question, cannot enable them to determine that it has been subject to the action of the water for a certain time at least—namely, from five to six weeks?

"In addition to the queries proposed to be put to Mr. Tomlinson and Mr. Blount, it may be right to propose the following to Dr. John Johnstone, in case he should be examined:—

"Whether a fair induction, from the mere appearances of the body and the analogy of these appearances to those in other cases, will not afford us a better clue by which to conduct our inquiry than any hypothesis, however splendidly adorned and however ingeniously defended?—(See Johnstone on Mineral Poisons.)—Have you not paid much attention to the subject of mineral poisons? Can you not, from the appearance of a body upon dissection, determine whether death was occasioned by the administration of arsenic and corrosive sublimate? Is experience or scientific report the criterion of your determination? How do you explain the effects of arsenic and corrosive sublimate on the living animal? Are not many men of science of opinion that these poisons act by their spicula; and is the subject perfectly understood?

"To these questions he will probably reply, that he has paid much attention to the subject, and has published a work upon it; that he can determine pretty accurately, from the appearance only, whether death was occasioned by either of these mineral poisons; that his opinion is partly the result of experience and partly of scientific report; that there is much difference of opinion amongst men of science, as to the manner in which these mineral poisons act upon a living animal, and that the subject is not fully understood. If, then, he admits that the manner in which mineral poisons act is not well understood, but that he can, from his experience, or from the information which he has obtained in the course of his professional pursuits, determine from the appearance of the subject whether death was occasioned by either of these mineral poisons, may he not be asked whether a man, who has paid much attention to the decomposition of animal matter when immersed in water, and has made numerous experiments upon the subject, cannot determine with equal precision that a certain effect cannot be produced in less than a certain space of time? Whether he did not write to Dr. Geo. Gibbes, of Bath, upon this subject; and what was his motive in writing?

"Dr. Johnstone's motive must be obvious: he knew Dr. Gibbes had the greatest expe-

rience of any one in the kingdom upon this subject; he therefore wished to ascertain his opinion. If he should oppose Dr. Gibbes' evidence, he may be questioned as to this point of inconsistency in his conduct.

Should Mr. George Freer be called by the defendants, before the defendants enter upon his examination he should be asked whether he is not a creditor.

The plaintiff, however, does not wish to take advantage of this circumstance; his examination will therefore proceed. After the cross-examination, which will be nearly the same as that of Mr. Tomlinson and the others, he should be asked whether he was not requested by Mr. Lawrence, previous to the inquest upon the body of Mr. Meecham, to go over to inspect the body; whether he did not say that he could not conveniently go, on account of a journey he was about to take the day after to London? Whether he did not afterwards, in a conversation with Mr. Lawrence, explain his refusal to see the body, by saying that, if he did, he was afraid he might disoblige some of his good friends? Whether, on the same day he was asked as above to see the body, he did not say, in a conversation with Mr. George Barker, that he did not like to go, because he saw a great deal of difficulty in the case? Whether he did not say to Mr. Samuel Dickenson, a few days ago, that nobody could give any determinate opinion upon the subject in dispute, but those who had made actual experiments; and he afterwards said he was glad he did not make any experiments, because then he *should* have known; how, after these several declarations, he can now come forward to give a decisive opinion?

"To prove that this witness first saw the body of Mr. Meecham on Thursday, the 13th December, with the view of ascertaining what particular changes had taken place in it; that this witness did not, on this day, proceed in a more minute examination than what a cursory view of it afforded, at the same time he was convinced that very peculiar changes had taken place; that on the next day (Friday) this witness, together with Dr. Bree and Mr. Vickers, examined the body; that he assisted in removing a portion of the muscles of the fore part of the belly, and also a portion of the muscles on the upper and back part of the thigh; that the appearance of these parts, when so removed, and the general appearance of the body, induced this witness to conclude that the body must have been exposed to the action of water for a considerable time; that, knowing that Mr. Meecham left home on the 3d November preceding this period, this witness is of opinion that his body must have been in the water during the whole of his absence; call Mr. Sam. Dickenson, surgeon.

"To prove that this witness, in company with Mr. Vickers and Mr. Samuel Dickenson, saw the body of Mr. Meecham, after it was found as above stated, on Friday, the 14th December last; that he was present, and saw a portion of the muscle of the fore part of the belly, and also a portion of the upper and back part of the thigh removed from the body; that, from the general appearance of the body, and the more striking appearance of these parts when so removed, this witness was satisfied that the body must have been in the water at least the whole of the time which he understood Mr. Meecham had been absent and undiscovered—*viz.* from the 3d November to the 12th December: call Dr. Robert Bree.

"To prove to the same effect, call this witness, who assisted in the dissection of the body—Mr. Thos. James Vickers, surgeon.

"To prove that this witness gave to Mr. George Barker a portion of the muscle which he had dissected from the body of Mr. Meecham, call Mr. Samuel Dickenson.

"To prove that this witness waited upon Dr. Gibbes, of Bath, with the portion of the muscle which he received from Mr. Dickenson the 20th instant; call Mr. Geo. Barker.

"To prove that this witness, from his experience on the subject of the conversion of animal substance into adipocire, and from his experiments on the substance given to him by Mr. Barker, is of opinion that the longest time possible, from the disappearance of Mr. Meecham to the finding of the body, should be allowed for effecting the change which he observed; call Dr. George Smith Gibbes, of Bath.

The following are some notes of the evidence given in Court on the day of trial:—

Mr. Dickenson.—I thought the body could not have been less than six weeks submersed. I think a week more would have made a great difference. In three or four weeks it would not have so appeared. Heard of Meecham being indisposed. I thought the state of the body could not have been brought about in less than six weeks. I have seen bodies since that time—one from the Severn—not advanced so far; had assumed a spermoceti appearance.

Dr. Bree.—Was with Dickenson and Vickers on the Friday. When I came to the body, I was more satisfied with Mr. Dickenson's report. The parts of the thigh and belly were in that state which is called soapy fat, and with that tenacity and feel as to contain adipocire. I was satisfied, upon reflection, of the length of time necessary to produce this state. I should have supposed it must have been under water more than six weeks. If exposed to air, it would not have exhibited those appearances. I mean to say my opinion is that he had been under water the whole time he had been absent. Have

said the body was in such a state as that it would be impossible to pass an opinion.

Dr. Gibbes.—Since 1793 I have subjected substances that have lain in water to some experiments, and the time which is required to change muscle into this state is a considerable time. I have produced a small quantity in a month."

I shall now proceed, in the course of the subjects I proposed lecturing on, to treat of *Policies of Life Assurance*.

It is in general a condition, or warranty in an assurance upon a life, that the person whose life is meant to be insured, has not any "disorder which tends to the shortening of life;" that he has had the small-pox; and that his age does not exceed a certain limit.

By the warranty that the person whose life is to be insured "has no disorder which tends to the shortening of life," is not to be understood that he is perfectly free from the seeds of all disorder. The warranty is sufficiently true if he be in a reasonably good state of health, and that his life may be insured on the common terms for a person of his age or condition.

I will read to you a case, from which you will collect, that although a person labours under a particular infirmity, yet if it can be shewn that this has no tendency to shorten life, and, in fact, did not contribute to his death, the warranty is sufficiently true.

"In an action on a policy made on the life of Sir James Ross, for one year from October 1759 to October 1760, warranted in good health at the time of making the policy; the fact was, that Sir James had received a wound at the battle of La Feldt in the year 1747, in his loins, which had occasioned a partial relaxation or palsy, so that he could not retain his urine or fæces, and which was not mentioned to the insurer. Sir James died of a malignant fever within the time of the insurance. All the physicians and surgeons who were examined for the plaintiff, swore that the wound had no sort of connexion with the fever; and that the want of retention was not a disorder that shortened life; but he might, notwithstanding that, have lived to the common age of man; and the surgeons who opened him said, that his intestines were all sound. There was one physician examined for the defendant, who said, the want of retention was paralytic; but being asked to explain, he said it was only a local palsy, arising from the wound, but did not affect life; but upon the whole he did not look upon him as a good life.

"*Lord Mansfield.*—The question of fraud cannot exist in this case. When a man makes insurance on a life generally, without any representation of the state of the life insured, the insurer takes all the risk, unless

there was some fraud in the person insuring, either by his suppressing some circumstance which he knew, or by alleging what was false. But if the person insuring knew no more than the insurer, the latter takes the risk. In this case there is a warranty, and wherever that is the case, it must at all events be proved that the party was a good life, which makes the question on a warranty much larger than that on a fraud. Here it is proved that there was no representation at all, as to the state of life, &c. But where there is a warranty, then nothing need be told; but it must in general be proved, if litigated, that the life was in fact a good one, and so it may be, though he have a particular infirmity. The only question is, whether he was in a reasonable good state of health, and such a life as ought to be insured on common terms.' The jury upon this direction, without going out of court, found a verdict for the plaintiff."

I will read you another decision of Lord Mansfield's, illustrative of this subject.

"In *Willis v. Poole*, which was on a case of gout, his lordship said, 'such a warranty can never mean that a man has not the seeds of disorder. We are all born with the seeds of mortality in us. A man subject to the gout is a life capable of being insured, if he has no sickness at the time to make it an unequal contract.'

I will now cite to you a case where a person's life was actually cut short by a complaint which he had at the time of the insurance, and yet the policy was not void, because, though the complaint did actually shorten the life insured, it was not the general tendency of the complaint to shorten life.

"In *Watson v. Mainwaring*, (4 Taunt 763), the case turned on the question whether the complaint with which the deceased was afflicted and ultimately died, was an ordinary, or an organic dyspepsia. The jury found that it was neither organic nor excessive (i. e. at the time of insurance)."

Chambre J.—"All disorders have more or less a tendency to shorten life, even the most trifling; as, for instance, corns may end in a mortification; that is not the meaning of the clause: if dyspepsia were a disorder tending to shorten life within this exception, the lives of half the members of the profession of the law would be uninsurable."

I will next mention a case in which it was held to be a question for a jury to determine, whether the concealment of the fact, "that the person whose life was insured was a prisoner for debt," would avoid the policy:—"This was an action upon a policy of insurance subscribed by the Albion Insurance Company upon the life of Elizabeth Swayne. Upon the trial of the cause at the Sarum spring assizes, 1815, before Justice Dampier, one defence was, that

there had been a fraud in effecting the policy by the suppression of a fact which the contract required the assured to disclose. It appeared that E. Swayne, who had been many years resident in a house of her own in the parish of Fisherton Anger, but was in December 1813 a prisoner for debt in the county gaol in Fisherton Anger, then employed Mather to effect an insurance on her life with the defendants: one condition of the insurance was, that a declaration should be made of the state of the health of the life insured, and Mather, reciting that he had proposed on the behalf of Elizabeth Swayne, of Fisherton Anger, an insurance on her life, which had been accepted on the declaration then following, declared that E. Swayne did not exceed the age of 66 years, and that she was then resident as above; it was stipulated that the policy should be valid, only if the statement were free from all misrepresentation or reservation. For the purpose of ascertaining the state of her health, Mather, by the direction of the defendants, called in a physician, who found the subject in the gaol, which is in a situation perfectly healthy, confined in a large airy room, well calculated to preserve the health of its inhabitants. She was apparently about 60 years of age, a fresh-looking, healthy, hale woman, making allowances for her confinement; for confinement makes some difference in the state of health. He certified that she was in good health, and he would have noticed on his certificate the fact of her being in jail, had he not been led by the circumstance of Mather's speaking of the defendants by the term 'our office,' to suppose he was an agent of the defendants, and that all which he knew would be communicated, for the witness thought it a fact material to the terms of the contract to be communicated. Upon this evidence, Justice Dampier thought that Mather had by contrivance prevented the physician from stating a fact to the defendants, which he thought material to the contract, and he therefore stopped the plaintiff's case, and without hearing the defendant's case, directed a nonsuit."—6 *Taunton's Reports*, 186.

I will now mention a case of concealment which occurred a few years ago, and in which I was engaged:—"This was an action on a policy of insurance, executed by the defendants on the life of a Mrs. Elgie.

"At the trial before Chief Justice Abbott, Lincoln summer assizes 1826, it appeared that for some years previous to December 1822, Mrs. Elgie had been in a delicate state of health, exhibiting, particularly in the year 1821, symptoms which were thought to be phthisical; and having been in October 1822 twice alarmingly ill, in December 1822 Mr. Boot, a medical practitioner, who resided some miles off, and was

not then in attendance upon her, but who had known her for many years, was sent for to examine her, with a view to the present insurance: he examined particularly the state of her lungs and liver, and finding them, as he thought, sound, certified to the defendants that the ordinary state of her health was good. On the 19th of March following he gave another certificate to the same effect, upon which the insurance was effected in April 1823. Mrs. Elgie died of diseased lungs in April 1824.

"Between December 1822 and the 19th of March, 1823, she was attended by Mr. Bland, a medical practitioner, who resided in her neighbourhood.

"She had a troublesome cough, and became much emaciated: her diet was regulated, with a view to add to her strength without increasing febrile symptoms and irritation, to which she was then subject in the evening; but Mr. Bland thought that disease of structure had not taken place.

"When the insurance was effected, no communication was made of this illness, or of the attendance of Mr. Bland.

"The learned Chief Justice left it to the jury generally to say, whether any misrepresentation had been made to the defendants, but did not expressly call upon them to consider whether the illness in January and February 1823, and the attendance of Mr. Bland, ought to have been communicated before the insurance was effected.

"A verdict having been found for the plaintiff,

"Serjeant Wilde, in the last term, obtained a rule *Nisi* for a new trial, on the ground that there had not been so full a disclosure to the defendants of Mrs. Elgie's situation as they were entitled to receive.

"Serjeants Vaughan and Taddy, who shewed cause, contended that all which it was material for the defendants to know was, the condition of the life at the time of the insurance, and that there was no evidence to shew that Mrs. Elgie was not in good health on the 19th of March and the 23d of April. Provided her health was re-established at the time of the insurance, the knowledge of her previous condition could be of no importance to the defendants.

"Serjeant Bosanquet, in support of the rule, argued that if the defendants had been made acquainted with the previous illness, they might have been deterred from the insurance by the apprehension of a relapse; and he cited *Carter v. Boehn*, *Bufe v. Turner*, and *Fitzherbert v. Mather*, to shew that an insurance is a contract *uberrime fidei*, and that it is avoided by the suppression of any circumstance which may assist the insurer towards forming a correct judgment.

"Chief Justice Best:—Whether or not it was material for the defendants to have been

made acquainted with the fact which has been withheld from their knowledge, is a question for the jury. It is probable, however, it would be esteemed material, because all insurance offices are desirous to consult with the medical man who has been last in attendance on the life insured. I think, therefore, there should be a new trial on payment of costs, as the attendance of Bland on Mrs. Elgie was not disclosed to the insurers.

"Rule absolute."—4 *Bingham's Rep.* 60.

This case was tried again, and the jury were of opinion that the concealment was not material. I was counsel for the plaintiff; and I think it did not do us any injury that the cause was tried by a jury of the town of Lincoln, and not a county jury; and that Mr. Boot, the surgeon who certified as to the health of the person insured, was in the chief practice in the town of Lincoln, and probably attended some of the jurymen's families.

I will read you another case, as shewing that concealment will avoid a policy even when the subject of the concealment has no connexion with the subsequent death of the party:—"Action on two policies of insurance effected by the plaintiff at the Pelican Insurance Company (to which the defendant was secretary,) on the life of Colonel Lyon, to whom the plaintiff was an annuity creditor. One of the policies was dated on the 16th of May, 1823, and was for 690l.; the other was dated on the 17th of June, and was for 650l.

"Colonel Lyon died in October 1823 of a bilious remittent fever. The execution of the policies was admitted, and also the plaintiff's interest.

"The defence was, misrepresentation and improper concealment on the part of Colonel Lyon, previous to the effecting of the policies.

"To substantiate this defence, it was proved that the office, previous to the execution of the policies, sent a number of printed questions to Colonel Lyon for him to answer, among which were the two following:—"Who is your medical attendant?" To which Colonel Lyon answered, 'I have none except Mr. Guy, of Chichester;' and "Have you ever had a serious illness?" To this he answered, 'Never?' Mr. Guy was referred to, and he gave it as his opinion that Colonel Lyon was an insurable life. But it was proved that Mr. Guy had not been called on to attend him for three years previous to his giving his certificate; but that, in the year 1823, Colonel Lyon was attended, from the month of February to the month of April, by Dr. Veitch, a physician, and Mr. Jordan, a surgeon, for an inflammation of the liver, and a fever, and determination of blood to the head. The former of these gentlemen proved that he considered

him to be in a dangerous way, and that he prescribed active medicines, and ordered him sometimes sixteen leeches a day; and that he would not have certified him to be in health till the end of the month of May. It was, however, agreed on all hands, that the disease of which he died, had no relation to any of the complaints for which these gentlemen attended him.

"*Chief Justice Abbott.*—The question is, whether any wilful misrepresentation or suppression of the truth took place on the part of Colonel Lyon, to induce the office to effect these policies; and the jury must consider whether the reference to Mr. Guy, when he was daily attended by a physician and surgeon in town, was intended to prevent a disclosure of his real state of health? For, if he referred to Mr. Guy, because he would speak well of his health, and thought that, if he referred to the other medical men, they would not so certify, *though he did not die of the disease he was then afflicted with*, I am clearly of opinion, that the defendant is entitled to a verdict. And if the reference was made to Mr. Guy, because he did not know the colonel's latter state of health, this is such a misrepresentation as will avoid the policies. And though the party here was an annuity creditor of Colonel Lyon, yet, if he allowed the colonel to make these representations when the policy was effected, he is bound by them; and, however hard it may be on the plaintiff, the rules of law must be adhered to.

"Verdict for the defendant."—1 *Carr. and Payne's Reports*, 360.

I shall only trouble you with one case more on this subject—the insurance on the life of the Duke of Saxe Gotha.

[Here Mr. Amos quoted some passages from the case of *Von Lindenau v. Desborough*, a full report of which may be found in *Med. Gaz.* vol. ii. p. 669-672.]

There is a case which occurred in Scotland, as to whether the concealment of the fact of the person whose life was insured being in the habit of taking opium, was material. I am in hopes of attaining some notes of this case, as I have understood that a great deal of legal talent was brought to bear upon it by the luminaries of the Scottish bar.

But I trust I have said enough upon the subject of the insurance of life to give you, perhaps, an additional interest in noting the effect of diseases as they may tend to shorten life; to put you more upon your guard, when consulted upon the subject of the health of a person whose life is about to be insured; and to suggest to you the ordinary points of inquiry by counsel and the court, should you be called as witnesses in any action between the holders of policies of life insurance and insurance companies.

The consideration of health leads me on

to another branch of my lectures—the law of Nuisances affecting health.

In general, a civil action may be sustained for an injury to a person's house, which renders it uncomfortable for the purpose of habitation—as for the erection and use of a smith's forge, a privy, a pig-sty, a lime-kiln, a tobacco-mill, where the use of these erections renders the enjoyment of previously-erected premises unwholesome or uncomfortable. An action lies also for the corruption of water by drugs, by means of which water, running through a man's premises, is rendered less serviceable for the use of his cattle.

It is otherwise where the act complained of is simply attended with inconvenience, as the cutting off a prospect by building a wall. But if the wall excluded the light of windows which had enjoyed the light for twenty years, the erection of the wall would be actionable.

It is reported to have been decided, that an action was not sustainable for keeping a number of pointers so near a person's house that his family were disturbed from sleeping. But I scarcely consider that this decision would be much attended to in the present day; and it seems very difficult to distinguish between a nuisance by the establishment of a dog-kennel near a man's house and the use of a forge.

Wherever a person receives a particular injury by reason of a nuisance, he may bring an action, and recover damages. But if the injury he sustains is no more than what is sustained by all the King's subjects, the remedy is by indictment at the suit of the king, and the punishment is by fine or imprisonment.

I will read you a couple of cases illustrative of the law as it respects indictments for nuisances:—

“Rex v. Cross.”—Indictment for a nuisance in keeping a house for slaughtering horses, at a place called Bell Isle, in the parish of St. Mary, Islington. There were also counts framed on a private act of parliament, 59 Geo. 3, c. 39, s. 88, on which no question was raised. Plea—Not Guilty.

“It was proved that very offensive smells proceeded from the defendant's slaughtering house, to the annoyance of those who lived near it, and also of persons who passed along a turnpike road, leading from Battle Bridge to Holloway.

“The defendant put in a certificate and license, under the statute 26 Geo. 3, c. 71, s. 1, authorising him to keep a house for the slaughtering of horses.

“*Chief Justice Abbott.*—This certificate is no defence; and even if it were, a license from all the magistrates in the county to the defendant to slaughter horses in this very place, it would not entitle the defendant to continue the business there one hour after it

becomes a public nuisance to the neighbourhood. If a certain noxious trade is already established in a place remote from habitations and public roads, and persons afterwards come and build houses within the reach of its noxious effects; or if a public road be made so near to it that the carrying-on of the trade becomes a nuisance to the persons using the road; in those cases the party would be entitled to continue his trade, because his trade was legal before the erection of the houses in the one case, and the making of the road in the other.

“Verdict—Guilty.”—*2 Carr. and Payne's Reports*, 483.

“Rex v. Neil.”—Indictment for a nuisance, in carrying on the trade of a varnish-maker at Bell Isle, in the parish of St. Mary, Islington. This indictment also contained counts framed on the private act of parliament, 59 Geo. 3, c. 39, s. 88, on which no question was raised.

“For the prosecution it was proved that offensive smells proceeded from the defendant's manufactory, to the annoyance of persons passing along a road leading from Battle Bridge to Highgate.

“The defence put in proof was, that the smells that proceeded from the defendant's manufactory, were not injurious to health; and, secondly, that at Bell Isle, and in the immediate neighbourhood of the defendant's manufactory, there were several houses for slaughtering horses, a brewery, a gas-manufactory, a melter of kitchen stuff, and a blood-boiler; and that although the accumulation of all the smells was offensive, yet that the defendant's alone would not have been so, and therefore was no nuisance.

“*Chief Justice Abbott.*—It is not necessary that a public nuisance should be injurious to health; if there be smells offensive to the senses, that is enough, as the neighbourhood has a right to fresh and pure air. It has been proved that a number of other offensive trades are carried on near this place—knackers, melters of kitchen-stuff, &c. but the presence of other nuisances will not justify any one of them; or the more nuisances there were, the more fixed they would be; however, one is not the less subject to prosecution because others are culpable. The only question, therefore, is this—Is the business, as carried on by the defendant, productive of smells offensive to persons passing along the public highway?

“Verdict—Guilty.”—*Ibid.* 485.

It is an indictable offence to expose in a public highway, with full knowledge of the fact, a person infected with a contagious disorder. This was held, for the first time, by Lord Ellenborough, in the case of a woman who had carried her child through the streets when infected with the small-pox. ..

“*Le Blanc, J.* in passing sentence in this

case, observed, that although the Court had not found upon its records any prosecution for the specific offence, yet there could be no doubt, in point of law, that if a person unlawfully, injuriously, and with full knowledge of the fact, exposes in a public highway a person infected with a contagious disorder, it is a common nuisance to all the subjects, and indictable as such. However, the Court was not disposed upon the present occasion to impute to the defendant an intention of being the cause of the consequences which had followed. Neither did they pronounce that every person who inoculated for this disease was guilty of an offence, provided it was done in a proper manner, and the patient was kept from the society of others, so as not to endanger a communication of the disease. In such a case the law did not pronounce it to be an offence. But no person, having a disorder of this description upon him, ought to be publicly exposed to the endangering the health and lives of the rest of the subjects*."

The defendant was sentenced to be imprisoned three months.

In a subsequent case, an indictment was brought against an apothecary for unlawfully and injuriously inoculating children with the small-pox, and while they were sick of it unlawfully and injuriously causing them to be carried along the public street. The defendant was found guilty; but it was moved in arrest of judgment, that this case differed materially from the last which I mentioned; as it appeared that the defendant was by profession a person qualified to inoculate with this disease, if it were lawful for any person to inoculate with it. That as to its being alleged that the defendant caused the children to be carried along the street, it was no more than this, that he directed the patients to attend him for advice, instead of visiting them, or that he prescribed what he might deem essential to their recovery, namely, air and exercise. But Lord Ellenborough said, that the indictment laid the act to be done unlawfully and injuriously; and that in order to support this statement, it must be shewn that what was done was in the manner of doing it, incautious, and likely to affect the health of others. And that, although inoculation for the small-pox may be practised lawfully and innocently, yet it must be under such guards as not to endanger the public health by communicating this infectious disease. And the apothecary was sentenced to six months' imprisonment†.

The public health may also be injured by selling unwholesome food. And it is an indictable offence to mix unwholesome ingredients in any thing made and supplied for the food of man. And if a master knows that his ser-

vant puts into bread what the law has prohibited; and the servant, from the quantity he puts in, makes the bread unwholesome, the master is answerable criminally; for he should have taken care that more than is wholesome was not inserted. The following case has occurred.

"John Dixon, baker to Chelsea Hospital, was indicted for having delivered, for the use of that establishment, two hundred and ninety-seven loaves, not of good household bread, but containing divers noxious and unwholesome materials. At the trial, before Lord Ellenborough, at the Middlesex Sittings after Easter-term, 1814, it appeared by the evidence in support of the charge that the children at their breakfast complained of the badness of these loaves; and some of the loaves being cut and tasted, lumps of crude alum were found in the bread, upon which some of the loaves were returned to the defendant. There was also general evidence that alum was an unwholesome ingredient. On the part of the defendant, his foreman proved that his master had two establishments, and that he (the foreman) was the person employed in making this bread—that he used to mix certain proportions of alum, after it was dissolved, with the bread, viz. eight ounces to eighty-two loaves, but he could not account for this alum being found in the crude state. He stated, also, that he had no reason to suppose that his master knew of any alum being mixed with this bread, but his cross-examination threw considerable doubt upon that point. The defendant then called a medical person, in order to prove that in his judgment alum mixed with bread in the proportions above stated, was not an unwholesome ingredient; but the witness being a quaker, and refusing to be sworn, his evidence could not be received. His lordship left it to the jury to say, whether the defendant knew of the alum being mixed, and the jury found the defendant guilty. The following term, *Scarlett* moved for a new trial, in order to have the benefit of the evidence which he was deprived of at the trial by reason of the witness being a quaker, and he tendered the affidavits of several physicians, all of which, he said, concurred in this, that alum mixed with bread in the proportion of eight ounces to eighty-two loaves, was not only innoxious but wholesome. Therefore he contended that if the defendant knew of the mixture, yet if he supposed it was mixed in such proportion as would not be pernicious, he would be discharged from this indictment, however he might be indictable in another form, as for employing an unskilful person, or that person might be indictable for his misconduct; because it is a maxim, that the principal is not answerable for his agent criminally, but only civilly. He likewise moved in arrest

* 4 Maule and Selwyn, 17.

† Ibid. 272.

of judgment on other grounds, but the Court refused a rule, either for a new trial or in arrest of judgment. *Lord Ellenborough* said, that the affidavits went no farther than to shew that alum was a material somewhat noxious, and therefore required great care on the part of those who ventured to use it, lest by their manner of using it they should cause it to become noxious. He who deals in a perilous article must beware how he deals; otherwise, if he observe not proper caution, he will be responsible: and the statute having interdicted alum in the making of bread, shews that it must be considered as a perilous article. Here the manner of using it appeared very plainly, for there were palpable lumps of the crude material in the bread. And *Mr. Justice Bayley* said, that if a person employed a servant to use alum, or any other ingredient, the unrestrained use of which was noxious, and did not restrain him in the use of it, such person would be answerable if the servant used it to excess, because he did not apply the proper precaution against its misuse. Upon one of the grounds of arresting judgment, *Lord Ellenborough* said, it was a universal principle, that when a man is charged with doing an act of which the probable consequence may be highly injurious, the intention is an inference of law resulting from the doing of the act; and here it was alleged that he delivered the loaves for the use and supply of the children, which could only mean for the children to eat, for otherwise they would not be for their use and supply."

Certain penalties are imposed on bakers for using alum and other noxious ingredients in making bread, by 1 & 2 G. 4, c. 50. And, by the new beer act, 1 W. 4, c. 64, it is provided, that if any person licensed to sell beer under that act, sells any beer, ale, or porter, made otherwise than from malt and hops, or shall mix, or cause to be mixed, any drugs or other pernicious ingredients with any beer sold in his house or premises, such offender for the first offence shall be fined not less than 10*l.* or more than 20*l.* For the second offence the punishment is more severe, including a disqualification to sell beer for two years. And it has been held, in a decision in the Court of King's Bench, where a druggist sold and delivered drugs to a brewer, knowing that they were to be used in the brewery, that the druggist in this case could not recover the price of his drugs.

At our next meeting, gentlemen, we shall consider the subject of Insanity.

* 3 M. and S. 12.

OF THE TREATMENT OF TYPHUS.

To the Editor of the London Medical Gazette.

SIR,

IN the following communication I shall enter upon the treatment of typhus, upon the principles I have before laid down. I am, sir,

Your obedient servant;

JAMES HOLBROOK, M.D.

Cheltenham, April, 1831.

The treatment must be regulated by the indications pointed out, by the degree of the various phenomena as they arise in the different stages, and by the effect of the remedies applied; the object being to relieve the system from the oppression of the infectious poison, in the first stage; to counteract the morbid operations of general and local reactions, in the second; and to support the powers of life, and assist and direct the resources of nature, in her operations for the restoration of such lesions as may have occurred from the effects of previous reactions and congestions, and such as may afterwards arise, in the third stage.

With a view to the successful management of this disease, every thing will depend on the judgment and promptness of treatment in the first stage, as by energetic measures the injurious effect of the secondary, or congestive, operation on the nervous system, as before explained, may be counteracted, the system relieved from oppression, and the restorative powers, by being properly directed, rendered on many occasions adequate to overcome the morbid operation of the poison, before it has thoroughly established itself in the constitution, and cut short the disease in its first stage; or that failing, will have a fair chance of so far lessening the violence of the second, as to render it comparatively mild, and substitute a state of convalescence for the third.

To effect this desirable object, when sufficiently early application has been made, the first thing done should be to administer from six to twenty grains of calomel, and then an emetic of antim. tartar. in the following manner:—Six grains to be dissolved in six ounces of barley water, or of pure water, whereof

at first one table-spoonful should be given every twenty minutes, until a considerable degree of nausea and relaxation of the system is produced, which will generally be the case with about four doses; but if not, it should be repeated every quarter of an hour, or ten minutes, until that object is effected, when a full dose, or about four table-spoonful, of the mixture should be given at once, to bring on full vomiting, and force the secretions from the stomach, duodenum, liver, &c. so that some should be ejected with the common contents of the stomach; to assist which warm water, or warm chamomile tea, ought to be drank freely.

By this mode of exhibiting the emetic, a considerable change is produced in the system, as by the peculiar operation of the tartarized antimony the capillaries are relaxed, secretion is promoted, and during the action of full vomiting the nervous system is roused, the balance of the circulation more adjusted, and a determination given to the extreme vessels.

While these means are pursued, steps should be taken to purify and thoroughly ventilate the apartments, so as to renew the atmosphere as often as possible, in order to carry off the exhalations from the body, both arising from the secretions and excretions; and which latter from the bowels and kidneys should be passed into a vessel containing a solution of the chloride of lime; and some of the same solution ought also to be occasionally sprinkled about the room.

These objects must be strictly attended to throughout the whole course of the disease.

When the stomach has become settled after the operation of the emetic, if a free operation shall not have taken place from the bowels from the conjoined effect of the calomel and the tartarized antimony, which is seldom the case to a sufficient degree, salts and senna, jalap, or castor oil, according to circumstances, should be given for that purpose, so as to free the alimentary canal, not only from the residue of the ingesta, but to force the secretions, and make the mouths of the lacteals, and absorbents on the surface of the whole course of the alimentary canal, disgorge themselves from any irritating matter they may have imbibed.

These important objects being attained, the system will be placed in a situation to enable the restorative powers to change and throw off the morbid impressions under which the system has laboured.

If, however, the system still continue depressed, the pulse feeble, and no disposition to reaction manifest itself, the warm bath should be used; and while in, the surface of the body should be well rubbed with flannel and soap, so as to excite the surface, open the pores, and remove any unhealthy matter that may be adherent. On being removed from the bath the patient should be placed in bed, and warm diluent drinks, such as barley water, or thin gruel, freely administered.

No reaction following these means, but the system still continuing oppressed with stupor, languor, and suppressed secretions, it is an evidence of a congestive state of the brain and other viscera, and must be relieved, and the balance of the circulation restored, by bleeding, which will be rendered more effectual by again placing the patient in a warm bath, and abstracting the blood at the time the circulation is solicited to the extreme vessels by the stimulus and relaxing power of the bath, the temperature of which, to obtain this object, should be about 100° F.; the intention being to relieve the oppression of the brain and nervous system, to restore the circulation to the extreme vessels, and equalize the distribution of blood by the derivation occasioned by the abstraction of a portion of the circulating mass; being guided in the quantity taken by the effect produced, and also in the propriety of its repetition.

Assistance may also be obtained by the local abstraction from the head, by leeches or cupping, and on some occasions by opening the temporal artery, or jugular vein; also by the application of blisters.

This mode of treatment will generally have the effect of greatly relieving the oppressed state of the system; the stupor and languor will subside, the circulation become more free, and a moderate degree of reaction pervade the system. A tendency to a restoration of the secretions will take place, and although the system may still labour under the morbid effects of the exciting cause, the brain and viscera

will be relieved from the local oppression arising from congestion, although not from the shock sustained.

Under these circumstances, great attention will be required to prevent fresh congestions and undue actions from taking place in particular organs, as the brain and nervous system being to a certain extent relieved, and the oppressing power of the infectious cause weakened, other local congestions may arise, followed by reactions, and establishing states of superadded local inflammation, requiring the nicest management to subdue.

To guard against these states, the exhibition of mercury should be had recourse to, until the mouth becomes affected, which will restore the secretions, and, by introducing a change in the capillary actions, also destroy the specific actions of the fever, already weakened by the treatment previously pursued. The Hydr. Submur. in doses of from three to six grains, with an equal proportion of antimonial powder, or a quarter of a grain of Antim. Tart. every three or four hours, according to circumstances, is the best form of exhibition; and care should at the same time be taken to carry off the secretions from the alimentary canal, by appropriate doses of salts alone, or combined with senna, castor-oil, or rhubarb, as the disposition to action in that canal, and the quality of the evacuations, may seem to require. On some occasions the calomel proves too irritating for the bowels, when the blue pill, or Hydrarg. c. Creta should be substituted.

Indications of the existence of local affections must be attentively watched, and leeches, blisters, or both, applied according to circumstances; but any general evacuation of blood must at this time, after the previous active treatment, be seldom admissible. If the head be much affected in this stage, cold lotions may be applied, in addition to the other local remedies.

Throughout the whole of the treatment, up to this time, the articles of nourishment must be confined within a very narrow compass: gruel, barley-water, roasted apples, and simples of that class, are all that can or should be admissible.

When, by this mode of exhibiting the mercury, its peculiar influence has been produced on the system, the favourable effects above described may be confi-

dently expected. The subsequent treatment must then be directed to favour the operations of nature in the re-establishment of the healthy functions of the system, when any indications for interference are presented; but the gradual subsidence of the mercurial action is generally followed by the return of the original actions of health, though in an exhausted state. The object of the physician will, therefore, be best effected by watching the actions going on, so as to remove any cause that may appear to interfere with, or interrupt the process of, restoration. As, by the occasional exhibition of mild doses of aperients, to prevent the injurious effects of irritations in the alimentary canal, or the absorption of irritating matters into the system—by the administering of nourishment adapted to the state of the digestive organs—by the cautious allowance of wine, porter, cyder, or such medicines as particular symptoms may appear to indicate; and when the general functions are established in their natural actions—the sulphate of quinine will be found invaluable in restoring the tone of the system.

Having now described the progress of fever, under circumstances of the timely application of remedies, it will be necessary, in the next place, to point out the proper treatment to be adopted, first, when the disease has taken full possession of the constitution, and considerable reactions are established; secondly, when the progress has extended to the third or advanced stage, in which the powers of the system are giving way and lesions of more or less extent have been produced, in certain of the viscera or tissues of the body. Also of that modification before described, in which the disease proceeds to a protracted course, the brain and nervous system labouring under a peculiar state of oppression.

[To be continued.]

DR. RAMADGE'S DEFENCE.

[We trust our readers will pardon us for occupying a portion of our space with the following letter: we are induced to give it insertion solely by the desire to avoid even the appearance of unfairness. To one point only will we advert: Dr.

Ramadge supposes that we intended to do him a "personal injury" by inserting his name in the list of those connected with the Collegium Wakleyanum; and we are pleased, though somewhat surprised, to find him thus jealous of his professional character. We have to inform him, however, that a contradiction of his being a member of that learned body was inserted in the number of this Journal following that in which the mistake occurred (See number for March 26, page 832). As to the rest, if any one still feels interest enough upon the subject, or thinks any answer necessary to Dr. Ramadge's letter, we request him to peruse that article of ours to which it is intended as a reply. —ED. GAZ.]

To the Editor of the London Medical Gazette.

ELY-PLACE, 4th May, 1831.

SIR,

IN your attack upon me, in your number of the 23d ult. I regret to see that you employ terms which are not tolerated in respectable society, and therefore ought not to be allowed to disgrace a work devoted to medical science. I freely forgive your abuse; but I beg to submit to your better judgment whether you benefit your cause or your argument by the use of epithets which alike derogate from your taste as a gentleman, and your character as a critic.

Your grounds of attack are, that I have sinned against the profession by having presumed, without their consent, to write a letter to Mr. St. John Long; for you do not seem to complain so much of my opinions *per se* as of these opinions being asserted in vindication of the practice of that gentleman. It is painful to see the members of a learned profession reduced to so pitiful a situation as to censure one of their brethren, as you do me, not for propagating error, but for speaking the truth when called upon by an injured party—that party being, for some envious reasons, under the ban of the faculty. Such conduct is truly illiberal, and must injure the profession in the eyes of the public much more than it can possibly injure the individual who is the object of your antipathy.

But your conduct is invidious and unpardonable in other respects. In a for-

mer number you were pleased to represent me as being connected with certain individuals who contemplate the establishment of a new medical college; but so far from this being the fact, I beg to assure you that I never expressed any opinion on the subject—never attended any of the meetings held for that purpose—nor have I so much as exchanged a single word during the last two years with the persons whom you describe as my colleagues. What motive could you have had for making these erroneous statements but to do me a personal injury?

You are pleased to say, that for my correspondence with Mr. Long, a correspondence which I did not court—which was, in fact, forced upon me under circumstances which no man of honour or candour could resist, I ought to be expelled the College of Physicians. Expelled, for what? Because, with as good pretensions to medical knowledge as any of the professional witnesses who gave evidence in the cases of Miss Cashin and Mrs. Lloyd, it has been my pleasure, as an independent physician, to point out the most probable, and as I truly believe, the real causes of the death of both these ladies? In the case of Miss Cashin, you deny that she laboured under any symptoms of consumption. From this I must conclude, either that you have not read the official report of the postmortem examination, or that you do not understand the meaning of the terms used in that very learned and elaborate document. This report was, I believe, drawn up by Dr. Thompson and Mr. Wildgoose, and approved of by Drs. Hogg, Goodeve, and Johnson, and by Messrs. King and Mackelcan. It says, "this lung (the left) had at its superior part a *small adhesion*, with a *cicatrix* of the lung arising from an *old attack of bronchitis*. This cicatrix contained, however, two small cavities, filled with purulent fluid."

Wonderful pathology! How, let me inquire, could a cicatrix arise from an old attack of bronchitis? It should have been from an old attack of consumption; for this is what any person, at all conversant with morbid anatomy, would say; not perhaps in this country, if I may judge by the learned specimen exhibited above; but at all events, in France and Germany, where this department of medical knowledge is better understood.

It is further stated in the postmortem report that the right lung, "at the upper part, contained a cicatrix, *similar in form, appearance, structure, and magnitude* (which was about the size of a walnut) *to the cicatrix of the left lung;*" and the cicatrices noticed were evidently *the result of abscesses of some earlier period of life*, which have been long entirely obliterated."

The fact here is, (as I have already stated in my letter to Mr. Long), that the cicatrices on the summit of the lungs are always the result of softened-down tubercles; and they not unfrequently have beneath them cavities, lined with semi-cartilaginous, or soft membrane, communicating with some bronchial tube. The abscesses in these organs generally differ from those met with in other parts, by healing from above downwards, in the direction of some bronchial opening. It is also to be observed, that abscesses formed without the previous existence of tubercles are perhaps never formed but in the inferior portions of the lungs. I feel myself warranted in making this assertion from the dissection of more than *one thousand* consumptive cases; and I am happy to reflect that the opinions I have expressed, and respecting which you betray your ignorance, throwing at the same time an air of ridicule upon them, will meet the assent of every enlightened morbid anatomist in Europe.

And is it for stating these opinions that you would, if you had the power, expel me from the College of Physicians? Is it because I have spent the whole of my professional life in investigating the morbid structures of the human body, that my opinion is to be underrated by individuals who value most highly the researches of those who, although their works on fever, asthma, consumption, &c. are deemed standards in England, rarely, if ever, opened a human body? The College of Physicians, sir, even if they had the power, would be ashamed to punish me for opinions of which they themselves know but little; for I well recollect that the learned President of that College, when I was examined, is the author of a work on a most interesting disease, respecting which it is still a desideratum to know, with a view to its best mode of cure, whether the kidney or stomach is a primary or secondary sufferer. He, I say, wrote a

work without having been at any pains to examine the body of a patient who had laboured under this particular disease, being satisfied with the superficial and inaccurate description given by the late Dr. Baillie on a single isolated case of the same disorder. Under these circumstances, the College could not presume even to question my opinions. This is a subject with which few of its learned members have, till very lately, had any opportunities of making themselves acquainted. So recently as till within the last nine or ten years, the College did not possess a dozen morbid specimens illustrating the diseases of mankind. They are now in possession of the museum of the late Dr. Baillie, who, although styled the greatest morbid anatomist in this country, did not avail himself, it would appear, of those opportunities he possessed of making himself acquainted with his subject; and of whose celebrated work Mr. Lawrence says, it is "merely a catalogue of morbid appearances, *and many important parts are entirely omitted.*"

Is it because I have opened the bodies of more than three or four asthmatic patients, and have met with more than one case of oedematous lungs, which appears to be the total number of such diseases examined by Dr. Baillie—or is it because I may happen to know morbid structures unknown to the profession—or is it because I can now say that the exciting cause of croup in children, and its oftentimes fatal character, is the result of an enlarged thymus gland, (as specimens in my museum will testify,) which circumstance has been wholly unknown to, and overlooked by, Drs. Baillie and Cheyne, of Dublin—is it for all this that I am to be turned out of the College, as you recommend? Such illiberality is only worthy of the dark ages that are past. I place my confidence in every enlightened member of Society, and shall rest my claims upon them and the high tribunals of the country, should occasion require so painful an appeal.

After such a display of liberal sentiments by a portion of the medical public, it would, I presume, be considered an unpardonable offence were I to take any notice of what was not sufficiently regarded in the examination of the body of our late excellent sovereign—viz. the congestive state of the whole

system of the vena porta, whereby hæmorrhage to the amount of three ounces took place from the mucous surface of the stomach, and was the immediate cause of his Majesty's dissolution.

When watery fluid in the chest prevents a proper expansion of the lungs, there is consequently a great congestion in the two venæ cavæ particularly; and as the hepatic veins cannot, therefore, transmit with freedom, on account of the obstructed circulation in the inferior cava, the blood from the system of the vena porta, comprising the veins from the stomach, spleen, pancreas, small and large intestines, some one of these parts is apt to be in a state of high vascularity, more especially from the minute arteries having no means by which they can freely pass along their contents. The condition of the stomach in cases of hydrothorax, whether arising from cardiac or pulmonary disease, or, in fact, from any other cause, is unfortunately little known to the profession, as far as I have been able to ascertain; and to prove this assertion, I may observe that I had the mucous coat of the stomach of some dropsical persons faithfully represented in wax, and as faithfully coloured; but judge my surprise when some of these, and two which I myself prepared, were shewn to several distinguished members of the profession, they immediately proclaimed them to be *undoubted examples of the effects of poisons*, from their high vascularity of various colours. This, sir, is some pathological information for the benefit of such of the profession as deem me incompetent. This fact is important in a medico-legal point of view.

I will now supply your want of pathological knowledge by relating what is said by Laennec on latent consumption; and to save the professional reader the trouble of referring to the French work, I shall quote a few extracts from the second edition of his Treatise on Diseases of the Chest, translated by Dr. Forbes. Page 375, *et seq.* he says, "Some cases of phthisis begin with diarrhœa, without being even accompanied by cough or expectoration, as was formerly observed by M. Portal." Phthisis may be long masked by nervous symptoms; I have known several cases in which it was concealed for years by an habitual dyspepsia and other symp-

oms of hypochondria." We may, indeed, say that the greater number of cases of phthisis are latent at the beginning, since we have seen that nothing is more common than to find miliary tubercles in lungs otherwise healthy, and in subjects who had never shewn any symptoms of consumption. On the other hand, from considering the great number of phthisical and other subjects in whom cicatrices are found in the summit of the lungs, I think it is more than probable that hardly any persons are ever carried off by a first attack." . . . "Other cases of phthisis are quite latent, being neither accompanied with cough or expectoration, or indeed with any symptoms sufficient to impress the memory of the patients themselves." In speaking of several cases which are detailed, Laennec observes, that "the defect of information respecting the formation of the cicatrices found after death, arose from those symptoms having been so slight as to have escaped the memory, if not the notice, of the patient. Out of 123 cases of phthisis observed by M. Louis, eight were latent—that is to say, exhibited neither cough nor other pectoral symptoms, during a period varying from five months to two years. In four of these cases, during the period of their latency, there were neither local or general symptoms." The same opinions are entertained by M. Andral, &c.

When Mr. Long transmitted me his letter, it was accompanied with a copy of the depositions of the witnesses on the inquest of Miss Cashin, and there I saw evidence of Miss Cashin having eaten plums, it being stated in the evidence of Mrs. Ottley that, in a conversation this lady had with Mrs. Roddis, who, when speaking of the plums eaten by the two young ladies (the Misses Cashin), observed, that "she never knew people to eat so many;" and Mr. Long informs me that Mrs. Roddis stated the same to the Marchioness of Ormond and Miss Ottley.

I regret the mistake I have fallen into respecting Mr. Brodie; but the gentlemen who informed me were pupils of Mr. Carpue, who warmly advocates the high operation for the stone, and which, I understand, he has successfully performed.

In reply to your remarks upon the differences between the College of Physicians and myself, I have only to ob-

serve, that when I was Censor of that chartered body, my suggestions respecting the Hunterian Museum, and which had for their object the conferring of important privileges upon the professional public generally, were successfully supported by the Duke of Somerset, Lord St. Helen's, the late Lord Colchester, and other distinguished characters. Possibly my interference in this way, and subsequently in another affair which was also for the public good, has excited the displeasure of the College; but I hope they will not soon forget, that a Parliamentary investigation respecting insane institutions was very far from being creditable to them, and which deprived them of the right of appointing commissioners for licensing mad-houses, and has already caused the county of Middlesex an expense of 100,000*l.* in erecting the establishment at Hanwell.

You conceive me to be very intimate with Mr. Long's "sayings, and doings, and doctrines," but you cannot form that opinion from any thing that I have written. I know very little of Mr. Long, and in all probability should never have known him at all, had I not been heartily disgusted at the first inquest with what I conceived to be the unbecoming, and quite unprofessional, conduct of more than one medical practitioner, who might be said to have usurped, in some degree, the office of counsel.

Mons. Laennec and others have taken the liberty, like myself, of mentioning their numerous dissections. Why am I not at liberty to follow their example? and why may I not, if I choose, say (which is the truth), that I have as good a collection of morbid preparations as the late Dr. Baillie, or any Fellow of the College of Physicians? and, if I except one midwifery lecturer, perhaps as valuable as any licentiate of the same college; and, to shew that I am not afraid to make this statement, it will afford me much pleasure to shew the same to any member of the profession who may favour me with a visit for this purpose.

You appear to doubt my success in the treatment of affections of the chest, when I state, that I have opened more than a thousand bodies of consumptive persons alone. I presume you suppose, that it is never allowed for me, or any

one else, to open the bodies of patients that have been under the care of other practitioners? This, I can assure you, is very frequently my case; and I feel very much indebted to medical gentlemen who honour me with an invitation to a post-mortem examination.

I conclude by smiling at your threat of expelling me from the medical profession; and I cannot avoid giving you this information, that the dignity of the medical community will always be best maintained by the superior learning and abilities of its professors, and not by arraying themselves unprofessionally against an humble individual. Why not apply, in a legal manner, to unlicensed practitioners, some existing law by which they can be prevented from practising? If no such law exists, the medical profession must be considered at a very low ebb indeed, if they cannot induce the legislature to enact some provision for this purpose.

I have now, sir, to request you will give this letter insertion in your next number.—I am, sir,

Your obedient servant,

F. H. RAMADGE, M.D. Oxon.

P.S.—I do not profess to answer the attacks from your anonymous correspondents, but this I may observe, that the letter of "Censor," in your last number, contains gross inaccuracies; and if he will favour me with his name, only faintly written with *black lead*, I can say something of his knowledge beyond what he may wish to have published. Your correspondent, I have no doubt, will understand this hint.

GRAND CONVOCATION OF THE COLLEGIUM WAKLEYANUM.

[We last week inserted a report of the proceedings at the Crown and Anchor, in reference to the *soi-disant* College of Medicine. The whole affair was such a complete burlesque—the performance of the speakers so very ridiculous—that we were somewhat afraid we should be accused of having exaggerated their absurdity: we therefore readily give insertion to another article, from a different quarter, written quite independently of our reporter's, and yet coinciding with

it so remarkably as to afford the strongest proof of the accuracy of both. The perusal may perhaps amuse our readers, and they are not likely to be troubled with much more of this same College: the thing, indeed, is a total failure, and the next meeting is not to be held till September!! which, we presume, is equivalent to moving in parliament that a bill be read again "this day six months."]

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To the Editor of the London Medical Gazette.

MR. EDITOR,—Influenced by a sincere regard for the profession, to which, (previously to yesterday evening) I ever esteemed it an honour to belong; and anxious to warn those whose youth and inexperience may expose them to the contagion of example, I request permission, through the medium of your excellent publication, to offer a few remarks on a meeting called together by advertisement last night, at the Crown and Anchor tavern. Induced by curiosity to witness the proceedings of persons styling themselves "the College of Medicine," I proceeded to the place of meeting, and found on my arrival, though long after the appointed hour, that the chair had not yet been taken. Were I to form an estimate of the respectability of the medical profession in London by the appearance of the motley assembly which there presented itself, I certainly could need no farther argument for the necessity of a speedy and radical reform. The majority consisted of mere apprentices, who, just emancipated from the shop, felt all the elevation consequent on the dignity of becoming the "Founders" of a College that hereafter should dispense the laws of medicine to mankind. Indeed, so great was the influence of this anticipated promotion, that the "big idea" straggling within their youthful bosoms frequently found vent in noisy ebullitions. Many an unsuccessful candidate for the regular license or diploma that evening laid the flattering unction to his soul that now he should retrieve his lost character by becoming the partisan of Mr. Wakley, and despising the foolish followers of alma mater, where regular certificates and liberal education are required. On the other hand, the senior portion of the assembly presented a melancholy proof of neglected merit,

and a powerful illustration of the truth of the satirist's remark—

"Nil habet infelix paupertas durius in se,
Quam quod ridiculos homines facit."

Here and there, however, there appeared a few individuals, rendered more conspicuous by the contrast, who, probably like myself, had been attracted by motives of curiosity; but in vain I looked round for the eminent practitioner, the talented professor, or the respected veteran, whose years might have added dignity, and whose weight in society might have given importance to the proceedings.

After considerable difficulty in procuring a chairman, (for Mr. Hume ungraciously disappointed them), they at length succeeded in persuading, or rather forcing one of those individuals I have mentioned as forming such a contrast to the rest of the assembly, to take the chair so *unapologetically* rejected by the honourable M.P. Ashamed of the unlooked-for distinction, the extemporaneous *Presses* begged leave to disclaim all identity with the proceedings, and wished it to be understood that he merely took the chair in order to permit them to proceed with the business. The principal speakers were, if I mistake not, a Mr. Dermott, who paid little attention to Hamlet's admonition—"do not saw the air too much with your hand;" and who, if we could doubt his country from his wanting her native eloquence, left little room for conjecture when he assured us he held in *his hand* a paper which he afterwards produced from *his pocket*.

He was succeeded by Dr. Ebbs, or Epps, a man evidently of some talent, though defective in enunciation, and exhibiting an admirable specimen of those *lusus nature* that serve "to point a moral or adorn a tale;" but how he came to ally himself with those around him, I am quite at a loss to conjecture.

The next was a speaker with a very vulgar Irish name, which I forget, [qu. Dr. O'Shaughnessy] and a still more vulgar Irish brogue. He stated, that being obliged to leave his own country, he could get no countenance in this, because, poor fellow! as he was neither surgeon, apothecary, nor university graduate, (so I understood him to say) no branch of the profession here would recognize him, which of course were very cogent reasons for the establishment of a New College of Medicine.

Mr. King, an "unadorned beauty," followed. With a modesty and disinterestedness worthy the days of Alfred, he assured them he would take upon himself the superintendence of their education—a powerful inducement, certainly, to contribute to this about-to-be favoured abode of the goddess Hygeia, for surely no professor of the present day can be *equally* fitted for this important duty. But, alas! for human nature—will you believe it, sir, the ungrateful youngsters hissed this modest declaration loud enough to force the attention, and call forth the animadversion of the speaker, notwithstanding the clapping of the apothecaries' boys, whose hands seemed to move instinctively, as if still engaged in the process of manipulation? The modest, "unadorned beauty," concluded by wishing us a good night, with a most graceful bow.

The next speaker, Dr. Beaumont, read his speech, which, though incomprehensible to me, I imagined, from the constant exercise in which it kept the risibility of the hearers, must abound in piquant humour, until, on closer observation, I perceived that the laughter was excited by the ridiculous contortions of his singularly-formed physiognomy.

The last speaker but one was a Mr. Walker, whom I could not help compassionating, for notwithstanding all the rehearsals, he seemed not yet by any means perfect in his part. He evidently had mixed with better society; and, like one urged on to what his better feelings revolted at, he got bewildered, and while he commenced by seconding one resolution, he concluded by moving another.

Though last, not least in the drama of the evening, appeared Mr. Wakley, who, after heaping in his usual style the coarsest abuse on our national institutions, concluded by reading the proceedings taken out against himself, and four of the principal orators, in the Court of King's Bench, by the College of Surgeons—from which he complains of having been "expelled." This document should have more properly formed the commencement than the conclusion of the scene, for if I had entertained any doubt as to the motives by which the parties were actuated, it would be completely dispelled by this document.

Exult, St. John Long! You are amply revenged. Wakley himself has vindicated you; and disproved, by the proceedings of last night, all the abuse

he has so unsparingly heaped on you. He asserts that those medical corporations are the nurseries of "ignorance, nepotism, monopoly, and corruption," whose object is "to discourage merit, depress genius, foster vice, and promote bigotry;" and yet he endeavoured to hunt you down because you dared to practise without a license from those bodies to which, if we are to believe his assertions, and those of his compeers, it is a degradation to belong; and in setting whose authority at naught you would deserve, not censure, but the praise of firmness and public spirit; for if those colleges be the corrupt and ignorant bodies represented, why should any man pride himself on their diploma?

For the benefit of mankind it is obviously necessary that some recognised tribunal should exist, which may discriminate between the pretender and the man of science, and give to the properly qualified the sanction of its authority; but if every turbulent member, maddened by degradation, should assume to himself the privilege of deciding on the merit of others, and, however shallow his own pretensions, should require that his fiat should become the criterion by which men were to regulate their patronage, it would quickly overturn those barriers against ignorance and empiricism, which it is so desirable to uphold. What claim, for example, has this junto to the confidence of the public in their decisions? Is it founded on their success in practice—their splendid talents—or their contributions to literature and science? No, sir; on the contrary, they are held in so little estimation by the public, that not one of them can boast of being known—either by his eminence as a practitioner, or his reputation as an author. Such persons it is useless to address, for their case is hopeless; I will therefore confine myself to those who, having entered on the study of the profession with youthful hopes and honourable emulation, still linger undecided on the threshold; and I entreat them, in the parting words of their chairman, *to pause before they identify themselves with such proceedings*, and to withdraw betimes from the society of men whose motives are interested, and whose characters are far from calculated to reflect honour upon them by the association.

Should Messrs. Wakley and Co. require pecuniary assistance to extricate

them from the difficulty into which their intemperance has plunged them, let them come candidly forward and avow their necessities; but let them not tax the pockets of warm-hearted young men, under the specious names of Collegiate subscriptions and eleemosynary donations;—funds which, I fear, if I may judge from appearances, will find more claimants than contributors.

Yours truly,
PHILOMEIDES.

May 5th, 1831.

DR. O'SHAUGHNESSY.

[THE following, which was addressed on the envelope to the Editor of the London Medical Gazette, we presume was intended for us. Now this is just the sort of thing we wanted; for nothing sets off a sketch so much as an original letter or communication. What with the outline by our reporter—the touching-off by our correspondent, Philomeides—and this finishing by himself—Dr. O'Shaughnessy must be hard to be pleased, indeed, if he is not *satisfied* with his portraiture in our pages. The letter, as a specimen of the style and manner of one of Wakley's "senators," cannot fail to be read with interest:—*ex uno disce omnes*.—ED. GAZ.]

To Dr. GREEN, *Editor of the Naked Journal*.
London, May 10, 1831.

SIR,

My motive for condescending to notice any thing that might emanate from such a malignant and contemptible wretch* as you appear to be, will be sufficiently explained by the vile, filthy, and atrocious language in which you gave an account, in the last number of your poor, empty, and rotten production, of the few remarks which I submitted to the consideration of the last meeting of the members of the medical profession, at the Crown and Anchor.

From the *ruffian-like manner* in which you have foully and basely misrepresented the speech I made on that occasion, with all the infernal acrimony that your concentrated malice and corrupted nature could possibly dictate, I now, therefore, call upon you to give that satisfaction which I have a right to expect from one who assumes the appearance of a gentleman; and if he be really such, let him answer this as becomes a man.

G. B. O'SHAUGHNESSY, M.D.

Committee-Room,
Crown and Anchor Tavern, Strand.

* So spelt in the original.

ROYAL INSTITUTION,

Friday, April 23, 1831.

B. B. CABELL, Esq. F.S.A. VICE-PRÆS.
IN THE CHAIR.

Mr. Faraday on Mr. Trevillian's Experiments, in which Sound is Produced by the Contact of Metals of Different Temperatures.

SOME short time since the Scotch newspapers teemed with accounts, which were copied into the English journals, of the experiments of Mr. Trevillian, which were stated to have revealed to us some new law affecting the transmission of heat and the production of sound, by its passing from one metal to another. The circumstance which first attracted attention was, that a heated poker, being placed in an inclined position on a table, and resting by its heated end on a piece of cold lead, certain sounds were heard, varying with the temperature of the metals, and their respective masses. This phenomenon has been subsequently investigated; and Mr. Faraday this evening explained, in a very interesting and perspicuous manner, the opinions of philosophers regarding its cause; from which it would appear to be rather the effect of already well-known and established laws, than of new ones by it revealed.

To develop the sound in question most fully and effectually, it is found best to place the lump of cold lead upon a sounding board, and, instead of a common iron poker, to have a brass instrument, somewhat in the shape of a poker, with a groove in its under side. This instrument, which is called the "*rocker*," should be heated moderately, (care being always taken that the heat be not sufficient to melt the lead, for, when this occurs, no sound can be produced,) and as soon as it is placed in the position above described, resting with its cold extremity or handle on the sounding board, and its heated mass or bit supported on the lead, a vibration ensues, which, when slow, produces no sound, but which, when the motion becomes more rapid, as it generally does, even to the rate of 500 vibrations in a second, then sounds are distinctly audible.

If the heated brass be put down steadily and firmly on the lead, no sounds re produced: it is necessary that mo-

tion should first be communicated to the rocker, which has the power in itself of continuing the vibrations, and even of increasing their rapidity. Hence, it will be perceived, that these sounds are referrible to the rapid motion of the rocker, and the striking of the inequalities of the one metal on the other. This curious motion may be thus accounted for:—The rocker has in its under surface a groove, so that it may be considered as supported by two legs on two corresponding points of the mass of lead: now if it be firmly and equably pressed down upon the leaden fulcrum, both points of the lead on which the legs of the heated brass rocker rest, will become equally heated, and neither motion nor sound will be perceived; but if one leg only touches the lead, and this contact takes place only the hundredth, or even the five-hundredth part of a second before the other, then the point on which it temporarily rests receives heat sufficient to expand it and to increase its bulk, not only latterly, but also to raise it into a minute point above the general surface of the mass; by which elevation, as well as by its own weight, the rocker becomes thrown on the other leg, which, in its turn, heats and elevates its corresponding point of lead, and this again throws the rocker again on the first point, which, however, in the meantime, has become cooled, through the exceeding good conducting power of metals: these two points of the lead supporting the two legs of the rocker thus become alternately heated and elevated, and then cooled and depressed, by which the continued vibrations of the rocker, and the sounds which its rapid movements produced, are kept up so long as the heat of the two masses of metal vary. There is also one other co-efficient cause which must not be omitted; for, as the alternate heating and cooling of the two points of the supporting lead between the two legs of the rocker must cause the lateral distention of this small field, as well as the direct elevation of its two boundary points, so consequently there will be a shifting motion of the supporting stratum, that will tend not a little to the continuance of the vibrations.

These principles Mr. Faraday proved and illustrated by a number of very convincing and interesting experiments, and showed by a table (which it would

be needless here to subjoin) that brass and lead, on account of their very different conducting and expanding powers, are the metals best adapted to produce these sounds, with the utmost energy and effect.

In the Library we noticed another new fire-escape, having the appearance of a moveable staircase, to be applied to the outsides of windows; a glass model of Parker's aero-fountain lamp; and various other mechanical and natural objects of interest.

Friday, May 6, 1831.

SIR GEORGE DUCKETT, BART. VICE-PRES.
IN THE CHAIR.

Mr. Lindley on the Pitcher Plant.

Some very splendid specimens of various plants bearing ascidia, such as nepenthes, cephalotus, &c. &c. with several genera and species newly discovered on the Indian peninsula by Dr. Wallich, were liberally furnished by that eminent botanist, to illustrate Mr. Lindley's dissertation delivered to the members and their friends in the theatre of the Royal Institution this evening. These instances, and the others to which Mr. Lindley principally adverted, are not, however, true pitcher plants, though commonly referred to as such, and it would be much better to distinguish them here by the names they bear in the countries where they grow, namely, "Monkey Cups," and to restrain the former title to the *sarracenias*, and their more immediate allies.

In treating the subject proposed, Mr. L. prefaced his observations by stating that he should be obliged rather to detail the vague hypotheses which from time to time have been indulged in, as to the use of these curious follicular appendages, than to descant on any established physiological doctrine, because he did not feel inclined to adopt the speculations which had been offered, neither was he prepared to advance any new or more rational explanation of their functions. This digest of the older opinions, as of Rumphius, Linnaeus, Smith, &c. which were severally discussed, it would be impertinent in us to repeat; they are doubtless familiar to our botanical readers; we may, however, express our surprise, that while

the more ancient views were dwelt on, the more modern doctrines of contemporary writers were passed over in perfect silence; such as, *e. g.* the idea that they may be the adumbration of a stomach in vegetables; an essay on which subject was published in one of the late numbers of the *Journal of Science*, edited at the Royal Institution, and which subject we remember to have since heard discussed by the author of the paper, on the very spot where Mr. Lindley stood; and, at the time, the view appeared to us to be supported by very plausible arguments, if not absolutely established by well-known and authentic facts.

There is also one of the final causes of their growth which, on the authority of a friend lately returned from the east, we cannot avoid here stating, more especially as it is a point on which Mr. Lindley appears to have been misinformed; namely, that animals do resort to these reservoirs, and drink the fluids they contain, which was denied by Mr. L.; for hence, as our friend informs us, from those creatures especially having recourse thereto, have they been called "*Monkey cups*."

The chief point this evening laboured to be established seemed to be, that all these foliolar appendages should be considered as formed by the modified development of the leaf-stalk and its stipules. That in *sarracenia*, the sacs should be esteemed modifications of these organs, we have little, indeed no doubt; but that they should be declared the result of the metamorphosis of the same parts in *nepenthes*, we at present think "land debatable." With all due deference to the opinions of others, it does seem to us that they would more rationally be considered modified developments of *proliferous leaves*; but this report cannot be the proper place for discussing a point which, of itself, might form a lengthened essay, with its numerous illustrations.

We cannot, however, avoid even here correcting an error into which Mr. Lindley has fallen, and which, we hear, that he takes frequent opportunities of proclaiming, viz. that the doctrines of morphology (the term which, on the authority of the German schools, it pleases him to adopt) is little attended to by British botanists, and scarcely taught as a part of the science in the

London classes; for we happen to know that it has long been taught, and strenuously inculcated, before Mr. Lindley commenced lecturing in the London University, in the Medical School of Great Windmill Street, and since in St. George's Hospital, though under a different title, viz. that of the metamorphoses of plants: indeed, we recollect that this very subject, *i. e.* "vegetable metamorphosis," was the subject of discussion two or three years ago, at one of the evening meetings at the Royal Institution, and that it formed a part, and no inconsiderable a part, of two courses of lectures delivered in the same place during the past and the preceding summers.

In the Library we noticed a great variety of interesting curiosities, natural and mechanical, from New Zealand, Sumatra, Burmah, Siam, &c. &c. far too numerous to mention; and also an experimental illustration of Mr. Marsh's very simple and convenient method of punching holes in glass, porcelain, &c. &c. described in the last number of the *Institution Journal*.

The announcement for Friday, 13th May, is "*Mr. Brochedon on Hannibal's passage of the Alps*."

MEDICO-BOTANICAL SOCIETY,

Tuesday, 26th April, 1821.

The Guaco.

AFTER the preliminary business of the meeting and the announcement of various presents, not the least important of which was the communication from the President, Earl Stanhope, of the arrival of a case containing several bottles of Guaco juice, which will be at the command of any medical practitioner who may have an opportunity of putting its curative powers to the test, in cases of hydrophobia, Dr. Sigmond read two papers from foreign correspondents, translated by him from the original Spanish; one of them on the *Hibiscus-Abel-Moschus*, in which its use in the cure of the bites of venomous serpents was highly extolled; but the account was too long for us to present even a summary detail. These communications were followed by a lecture "*On the Natural and Botanical History and Characters of Colchicum, Veratrum, and the other plants in the natural order Melanthaceæ*," which was delivered by

the Professor of Botany: of this also our confined columns will prevent us giving an account. The chemical and medicinal properties and qualities of the plants alluded to were discussed at the following meeting, on Tuesday, 10th May, by the Professor of Chemistry and *Materia Medica*.

MEDICAL GAZETTE.

Saturday, May 14, 1831.

"Licet omnibus, licet etiam mihi, dignitatem *Ar-tis Medicæ* tueri; potestas modo veniendi in publicum salis, dicendi periculum non recuso."—CICERO.

"DISTINCTION WITHOUT SEPARATION*."

We must confess we have been somewhat surprised by the tardiness of advocates coming forward in defence of the College of Surgeons and its chartered privileges: what was perhaps felt to be nobody's business in particular—but almost anybody's degradation—namely, to enter the lists with the riotous few who are so factiously opposed to the present state of things in that establishment—was naturally left undone. Of course we do not include ourselves in the number of those who have been thus tardy, any more than we rank ourselves among the general defenders of the College. We have long since spoken out, and our opinions are on record. Undeterred by the frowns, and uninfluenced by the favour of either party, we have candidly pointed out whatever seemed to be defective in the system—we have praised what we deemed commendable in it—and we have suggested whatever we thought likely to be conducive to its amelioration; and in doing so, we may almost say we have been left to figure in the field alone.

* Distinction without Separation. In a Letter to the President of the College of Surgeons, on the present state of the Profession. By Joseph Henry Green, F.R.S. F.G.S. Professor of Anatomy to the Royal Academy; Professor of Surgery at King's College, London; one of the Surgeons of St. Thomas's Hospital, &c.

But we are glad at last to hail the approach of an able advocate—a volunteer in the cause—for whom our only apprehensions must be, lest his courage and over-zeal carry him too far, and thus render his services of less avail. His ability and qualifications for performing the duty which he has assumed are not to be questioned; and it shall be our task, on the present occasion, merely to moderate the course of proceeding which he has adopted, and to offer such remarks, as we go along, as may serve to reconcile any little points of difference which may seem to exist between our sentiments and his.

After drawing a vivid sketch of the dignity of the medical profession, and of the animating principle—the native vigour—and the powerful tendency to growth, which characterise medicine above either of the other two learned faculties, we find the author of the pamphlet under consideration tracing, with a rapid and bold hand, the origin of those distinctions into medical, surgical, and general practice, which, he thinks, tend to disunite, and consequently to debilitate, the general harmonious whole—the great fabric and superstructure of medical science.

It is most true that there was a time when the faculty, such as it was, was one and undivided—that the College of Physicians alone embraced in itself all the elements of a complete medical constitution—and that, had it acted up to its original charter, there had now been no other medical corporation perhaps in existence: but how many separate interests have not started into being with the progress of time? We fear, that even with the blending power of all the co-operative philosophers in England, we should not be able to restore a perfect scheme of ordered unity—nor Mr. Green himself attain the desired result, even by his favourite "principle of co- and sub-ordination."

Yet such seems to be the main scope of his plan of "distinction without separation," which, he says, would have been steadily pursued even to this day if the College of Physicians had, in the first instance, steadily done its duty: nor even now that there are three distinct institutions in place of one, does he think the scheme of union at all impracticable. We must confess that such a project, coming from such a quarter, and at such a time of day, has rather surprised us; and we should be much inclined to consider it merely as a chimera of the brain—a flight of fancy of our author: at all events, we shall take leave to do so for the present, and proceed with something that is more within our grasp and comprehension.

The author makes no secret of his opinions on the present state of the College. "The constitution of the College (says he, in one part of his work) is, in all essential circumstances, adequate to the purposes for which it was intended: with some exceptions, doubtless, respecting the extent of its jurisdiction, and such improvements in its regulations as the improved state of the profession may require."

"That it has done much good," says he, in another place, "I cannot doubt, in producing a better-educated and more efficient body of surgeons, in rendering them more anxious for professional character, and in raising them in the public estimation. But whilst the College possesses no power of preventing ignorant and unqualified persons from practising surgery; whilst *men of bad character are permitted to enjoy the privilege of being associated with men of honour and respectability*; and whilst advertising quacks are suffered to stand on the list of its members, it may be doubted whether its influence is such as might be wished; nor am I prepared to say that the examination of candidates for admission, and the lectures illustrative of the museum, in point of extent, are such as may be deemed worthy of the advanced state of science."

Such gentle admissions as these of imperfection are surely no more than the admission of the existence of a few moles on a beautiful skin. But the reader is not to be induced from this statement to infer that Mr. Green evades the principal charge, which is now so generally fastened upon the College—that what has provoked the long and loud outcry against the present charter is cushioned by him in his eloquent apology: the *self-electing* ordinance, ("falsely so called," says Mr. G.) on which we ourselves have not hesitated to pour out some of the phials of our condemnation, Mr. Green even defends, and that, we are bound to add, with much cleverness. His distinction between the ordinances of such establishments as that of the College of Surgeons, and those of trading corporations, is ingenious, as well as for the most part just. Though the extract in which it is contained is rather long, we must make room for it.

"Colleges, societies, or institutes, for the protection and promotion of science or the fine arts, are one class of incorporations; the guilds, committees, companies, &c. of political, municipal, or commercial life, are altogether a different kind. To infer, therefore, that forms, practices, or regulations, which have been found expedient or necessary in the latter, might therefore be beneficially applied to the former, is, to say the least, a hasty presumption. On a fitting occasion, it might well repay the time of a thinking man to draw out the true character of this diversity of kind, and to place it in all the lights of which the subject is susceptible; but, for our present purpose, it will be sufficient to fix the attention on one essential and most characteristic point of difference. In all incorporations of common life, namely, the body or class of which the corporation is the supposed guardian and representative, is presumed as all-ready existing, and complete. The functions and duties of the corporation are strictly conservative; the interests common to this body, whatever be the trade and calling, and whatever be the

comparative number of the class, already exist as common to all the individuals, equally prized by all, and, from their palpable nature, such as may be rationally presumed to be equally understood by all. In deputing, therefore, a certain number of the whole class to watch over the common interests, and to preserve them from foreign encroachment, and from the injuries inflicted by the dishonest selfishness of unworthy associates, the electors can find easy and sufficient criteria in the wealth, extensive dealing, and fair character of the candidate or nominee. It may therefore be true, that in such institutions it is right and expedient that the few should be elected by the many; at all events the elective scheme is perfectly congruous with the nature and design of the institute. Now if, on the other hand, we look into the history of the different great learned or scientific colleges, academies, and institutes of civilised Europe; or if we consider the ends and purposes of their institution; we shall find that the paramount object has been to create a class not already existing, or to call forth a class existing only under the scum of such imperfections and deformations as necessarily intercepted every form of excellence that might be contained virtually therein. The purpose, I repeat, of the illustrious founders, has been to take advantage of the fortunate accidents of genius, knowledge, and attainments, which the particular age and country had presented, and so to combine these, as that they should work productively as well as influentially on the mass successively subjected to their influence, so as, in the greatest possible degree, to assimilate it to themselves. They were the ferment that was to work in the production of a given body, and not merely to be choice specimens of products already existing. The colleges of learning and science may exercise various functions, and fulfil sundry purposes, which belong to the corporations of common life; but this is their peculiar character—this is that by which they have and can alone worthily retain the name of a learned and liberal incorporation—that their characteristic object is prospective, the promotion, the advancement of the science or art, in distinction from, though, thank God, in necessary union with, the interests of scientific men, as individuals. Their characteris-

tic mode of action is to work by descent; they are to be the suns of the system to which they belong, and not mere mirrors, reflecting only the light that had been previously bestowed; and their characteristic form, from the very beginning, is by *appointment*—appointment by a higher, in contra-distinction from *election* by a supposed lower, or equal."

And presently after, descanting on the advantages arising from the practical application of the system here described, he says, most figuratively—

"Appointed, therefore, by the highest authority, and exercising an influence which evermore works descensively till as the product of its own subliming and assimilative action a correspondent ascension gradually takes place, a college thus framed perfects itself at length into a circle, ever working from above, yet ever returning on itself. Hence it is capable of embracing all the above-mentioned interests in perfect harmony and subordination: whereas in a guild or directory, chosen by the votes and major number of a body already formed, the last and lowest of these interests alone could be pretended or proposed for their efforts and their vigilance, by virtue of any right derived from the electors."

Fanciful as this is, there is undoubtedly a good deal of plausibility and truth about it; and so is there about his apology for what he acknowledges to be the sum and substance of things complained of in the present constitution of the College. We allude to what he says on the subject of the irresponsibility of the Council, and their power of nominating to vacant places among themselves. While treating this last topic, one argument stated by Mr. Green against the bestowal of the elective franchise on the members generally, is so well put, that we cannot refrain from giving it in his own words. In the compliment with which the passage begins, we need scarcely say how cordially we concur with the writer; and,

indeed, the whole view which he takes of the universal-suffrage scheme pleases us so well that we hesitate not to bestow on it our very warmest approbation.

"I cheerfully admit that the general practitioners number amongst them men most estimable in talent and character, yet they themselves will allow that the avocations and pursuits of the great body of their members, do not exactly fit them for the guardians of professional honour, and the promoters of science; and without wishing even to insinuate that those who devote themselves exclusively to surgery, are men of more integrity or more talent, yet I cannot but believe their habits as teachers, as surgeons of hospitals, their residence in London, and intercourse with those most influential in rank and talent, render it more likely that they should take enlarged views; that they should pursue professional studies with a view to the cultivation of science, and thus liberalising the profession, free it from the petty interests of a trade; that they should be awake to the wants of the profession, and supply them without jealousy or partiality; in short, that both their habits and their local advantages best fit them for constituting the governing council of the surgical department of the profession. It does appear, therefore, that it is not without justice, nor without consulting their own best interests, as professional men, that surgeon-apothecaries are, in the *present* state of the profession, excluded from forming a part of the executive administration of the affairs of the college.

"But these considerations are no doubt not conclusive respecting the propriety of granting to the general practitioners the elective franchise: for though it were admitted that they should not form part of the council, still it may be urged, that they might have a voice in electing the members of that council. But waving for the moment the principle, that popular elections are quite inconsistent with the design and intention of a college, and granting that the council of the college should be elected by the general body of surgeon-apothecaries, yet, who, I would ask, would virtually exercise the elective franchise? I know of no other answer to this question than that they would be the

London practitioners, since it is impossible that the country practitioners, the surgeons of the army and navy, or those resident in our colonies, though equally interested in the welfare of the profession, could attend the elections. And I need not say how unjust any arrangement of this kind would be to those members, and that thus, in pretending to make the elections popular, and give influence to the majority, you would, in fact, give power to the few at the expense of the many; and thus the measure would effectually defeat itself.

"But in thus adverting to the practitioners in the country, I cannot pass over the fact, that there is a very important distinction to be made between many, or most of these, and the London practitioners. In the country, necessarily, a great deal more of surgical practice devolves upon the general practitioner than in London; and many being surgeons of county hospitals and infirmaries, and residing in large towns, like Manchester, Leeds, Birmingham, Liverpool, (names which bring to my recollection men most eminent in practice, and sedulous cultivators of their profession as a science,) there would be found amongst them most desirable acquisitions, and men who would form bright ornaments to the college council; were it not obvious, that to the availing ourselves of their service, their residence in London is an indispensable condition. On the other hand, the *London general practitioners*, seldom called on in pure surgical cases, or acting only in a surgical capacity, are therefore, of the whole body, *those least fitted* to direct and control the interests of surgical practice and science."

But what strikes us as a very remarkable feature in the pamphlet before us, is, that after having shewn that the College, as it exists, is nearly as perfect as can be, the author betrays a most unaccountable readiness to remodel it; and that after a manner which we may be permitted, before we conclude, more particularly to advert to.

Though the constitution of the College, according to Mr. Green, is in all essential circumstances adequate to the purposes for which it was intended, yet

it may be made a legitimate object of inquiry, whether there are any means of producing a greater confidence in the establishment, and a closer union of its members; and as *exclusion* is, apparently with reason, so obnoxious, and so prevalent a cause of complaint, these, among others, are the modifications of the charter which he would propose:—

“1. That the government of the College should be vested in a *President*, a *Supreme Council*, and a *General Council*.

“2. That the Supreme Council should consist of the President and twenty members, who should have the entire management of the affairs of the College, and the conducting of examinations.

“3. That the members of the Supreme Council should appoint its own members from the General Council, and consist only of those who do not practise midwifery, nor dispense medicines.

“4. That the General Council should consist of the members of the Supreme Council, and of forty additional members, twenty of whom should be under the obligation not to practise midwifery nor dispense medicines, and the remaining twenty of general practitioners—making the total number of the General Council *sixty-one*.

“5. That the General Council should appoint its own members.”

The very head and front of these provisions can in our opinion scarcely produce anything but dissatisfaction. Is this, admitting the cry of exclusion to be a just one, the remedy that is likely to restore confidence in the College? Why not rather advocate directly the propriety of exclusion? For our part, as it appears to us, Mr. Green will reap but little credit from his proposed plan; he only weakens the force of his previous arguments, and runs a fair chance of giving offence to those whom he would seem most willing to conciliate.

Our extracts, we find, have left us no room for further comment. There are,

however, many other excellent points in the pamphlet which we should be sorry to overlook, or to treat slightly, and to which, at another opportunity, we shall take leave to call the attention of our readers; meantime, we beg to subjoin a letter on the subject, which we have just received.

PROPOSED MEDICAL ASSOCIATION.

To the Editor of the London Medical Gazette.

SIR,

I THINK it will be granted that there are very few reflecting men in the medical profession who do not believe that the system of medical education, and of medical polity generally, in this country, is in want of some improvement. Now, sir, the proposed “*College of Medicine*” is not likely to effect any amelioration or reform in medical polity; first, because many of its proposed measures are objectionable, or even Utopian; and, secondly, because the “*College of Medicine*” will not be joined by the most respectable and influential members of the profession, for reasons which need not here be stated. But, sir, if “an Association for the improvement of Medical Education and Polity, and for promoting harmony in the profession,” were formed, for the purpose of petitioning the constituted authorities, or even the legislature itself, for better laws and regulations than now exist, I am certain the said association would soon be joined by a powerful phalanx of rank and talent in medical science. Such an association, sir, would not work against existing institutions, but assist them in procuring wise legislative enactments, by collecting the voice of the profession into a focus.

Mr. Green, sir, has just published an able pamphlet, not only proposing some liberal measures to the College of Surgeons, but hinting a broad, wise, and enlightened scheme of medical polity generally, in which the three existing corporations are not proposed to be annihilated, but united in the work of reformation, and assisted by the combined efforts of the whole profession.

An association for this purpose is, I understand, in actual formation; and they should at once invite the talented author of the above-mentioned pamphlet to preside at their meetings.

I am, sir,
Your obedient servant,
MEDICUS.

May 10, 1831.

LONDON UNIVERSITY.

LAST week, in alluding to the numerous vacant chairs in the London University, we mentioned that Dr. Watson had declined the offer made by the Council, of appointing him to deliver the lectures on the Principles and Practice of Physic, next winter. We learn that he had previously resigned the Professorship of Clinical Medicine, and that he has subsequently wholly withdrawn his name from the list of candidates for the chair of medicine. The University has thus lost the services of an accomplished physician and a gentleman—no inconsiderable recommendation, as times go.

We have also learnt—but we cannot say with surprise—that Dr. D. D. Davis, the Professor of Midwifery, has allowed his name to be added to the *confrères* who are to constitute the “senate” of the new College of Medicine; and that he actually exhibited himself on a platform, at the Crown and Anchor, last week, to the twenty or thirty apothecaries’ boys and disappointed dotards who constituted the “Grand Convocation.” This learned professor and embryo senator it was, who, some months ago, introduced Wakley as his friend at one of the soirées* at the London University.

We understand that the absurd plan of appointing temporary lecturers has been abandoned.

* See Gazette, vol. vii. p. 872.

ST. THOMAS'S HOSPITAL.

CLINICAL LECTURE,

DELIVERED BY DR. ELLIOTSON,

March 26, 1831.

Phthisis—Beneficial effects from Inhaling Chlorine.

THERE were five patients presented, gentlemen, last week; two of whom were women, one with erysipelas and one with hepatitis.

Before, however, I speak of them, I ought to mention that, during the preceding week, a patient died from *phthisis*, whose case I omitted to notice in the last lecture. There was nothing peculiar in it; the woman had all the usual symptoms of *phthisis*; and, as usual, died from it; but the case was one in which I had prescribed the inhalation of iodine. I mentioned about two months ago that I should certainly endeavour to ascertain the power of the inhalation of various substances in *phthisis*, as with our present means it was found impossible to cure the disease; that all we could do was mere palliation, and that for the most part very poor; that, therefore, I should have recourse to any remedy that carried probability upon the face of it; and that I would report the results from time to time.

I have now used the inhalation of iodine in several cases, but I cannot say that in one it has yet effected a cure. I have used it in three cases, where there was decided excavation of the lungs, and this was one, and in all three death has taken place, I should think, much about the time it would otherwise have done. These were cases of excavation of the lungs; but whether it would cure the disease before excavation has taken place, I cannot, of course, pretend to say. I confess I have very great doubts on the subject; and when any person tells me that he has ascertained the existence of tubercles in the lungs, and found them disappear under the use of iodine or any other medicine, I must be well satisfied that that person is a very excellent auscultator, before I can give credit to his assertion. I do not think that many people are able to say in general with certainty that tubercles exist in a solid state, without excavation, and that, after a time, these tubercles disappear. I should very much doubt any observations of my own on such a matter, notwithstanding I have carefully attended to auscultation now for several years; because you cannot satisfactorily ascertain the existence of tubercles unless they are very numerous and aggregated so as to render one spot of the lungs solid. I have frequently found tubercles in the lungs after death, where no sign of them whatever was given during life. Where, however, they are aggregated, so as to form a mass, there, of course, on striking externally, you will find a dead sound, and

there will be less respiration there than natural, or none at all. But persons ought to be exquisitely nice auscultators to be able to declare the existence of tubercles with certainty, unless the deposition is considerable. We know that in chronic bronchitis, large tubes may be blocked up for a time, so that no respiratory murmur can be heard at the spot, and that afterwards these tubes will become open, and respiration be heard. I have seen respiration of a whole lung thus absolutely suspended for a whole fortnight, without any bad symptoms, and then the respiratory murmur spontaneously return. When we reflect on this, and the extreme difficulty of detecting tubercles, if not thus aggregated, before excavation has taken place, we ought not to place easy faith in the accounts which are given of tubercles having existed in the lungs and been removed. I do not presume to assert that such things have not taken place, but I confess I would rather witness them myself than believe such observations on the statements of others, unless, indeed, they were the conviction of several persons, known to be excellent auscultators; not of one or two individuals. I should doubt my own observations alone; I would not assert that tubercles had existed, and been removed in a single case, unless several friends, on whom I could depend, confirmed my observations on the particular case, excepting, of course, instances of tubercular masses; and that iodine will remove them I much doubt. I would not place any reliance upon the observations of any one who declared he could ascertain all by the naked ear that others could by the stethoscope; because this instrument affords infinitely greater nicety of observation. If the plug is removed, the sounds of both the heart and respiration are greatly magnified; there are some places of the chest to which the ear cannot be applied, as, for instance, in the axilla; and the contact of the side of the head with the chest is so much greater than of the instrument, that adventitious rustling sound frequently obscures the observation: lastly, the stethoscope can be applied to each individual point of the chest successively, with extreme nicety and expedition. Of course, the naked ear will give great information. But the nicety of the stethoscope is altogether far greater.

I have, however, used iodine in other cases than these three, but what has been the result I do not know. Several cases I have not seen again, and others are still in progress; but I cannot say that in any of them there has been such an improvement as to make me entertain very sanguine hopes of ultimate success. At the same time it would be very wrong to discourage trials. Such attempts are in the highest degree laudable, and I have no great respect for those persons who think that the profession can never be im-

proved, and are content with allowing their patients to die under the old-established jog-trot routine of means—well established as unsuccessful. We ought not to go on affording mere palliation when there is the slightest probability of doing real good, or of doing, in the slightest degree, more good than before, by any new means. I think it shows a very narrow mind to set one's face against attempts at improvement. I therefore give credit to all gentlemen who suggest any thing new, and still more to those who make exertions to carry such things into effect; but certainly I have not found even such temporary benefit under iodine as would give me very sanguine hopes. When there has been no evidence of any thing more than membranous affection, good has accrued; and, in excavation, certainly some alleviation. But I have used chlorine with certainly very considerable alleviation. I am attending a lady at this moment, who could not bear the inhalation of iodine in the quantity of a drop of the saturated tincture to three-quarters of a pint of water; it produced irritation, and yet she is able to inhale, in the same quantity of water, twenty drops of the saturated solution of chlorine, and the effect has been such, that her cough is nearly gone, and her expectoration reduced in a very great degree. I cannot believe that she will get well; but the amelioration has been such as I never saw before under the use of narcotics, or any other means whatever. There is a patient in this hospital labouring under phthisis and other complaints, and very bad he is, who could not bear the iodine. He used the smallest quantity that can be employed, but it immediately produced uneasiness, whereas he bears chlorine very well. In him the expectoration and the cough have been so reduced, that he will hardly allow there is any thing the matter with him. He says I have given him a new inside. The expectoration still exists to a certain extent, but the mitigation has been such as I never saw before in phthisis, from any means whatever. I have seen several other cases, both in private and public, where there has been a great mitigation under the use of chlorine; but whether it possesses curative powers, I cannot, of course, at present say. The iodine I know very frequently irritates, and it is necessary to add the tincture of conium, or of opium, or prussic acid, or hyoscyamus, to the solution, in order to prevent its injurious effects; but I have not found this necessary with chlorine; and when narcotics have been inhaled with iodine, they may often have deserved the whole credit, for I know that alone they are extremely useful.

I beg to observe that these are very crude observations, as I have only been using these remedies for two months. As, however, I shall not give any more clinical lectures till next season after the present month,

it is right that I should communicate these things to you, because it will be for your advantage to know that chlorine, at any rate, will produce such an amelioration as I have now mentioned, and that iodine really deserves a fair trial. It is a striking fact that persons who cannot bear iodine in any quantity whatever, can bear a full portion of chlorine: it is not in one case or two merely that I have observed this circumstance.

I think, as medical men, we have all been much to blame for neglecting the inhalation of various substances, though proposed and practised thirty or forty years ago; because we make applications to the surface of the body when it is variously diseased, and to the alimentary canal, and by inhalation we can make application to the air-passages themselves, when they are diseased. Nothing is easier than to make people inhale different substances by means of warm water. Inhalation is a more difficult thing if you employ gases; it cannot be done unless you have a large receptacle, with the substances of the exact strength that can be borne; but by causing the patient to inhale through impregnated water, so that the air is impregnated by the substance you employ, you can in that way employ any quantity you think proper of various substances. You have simply to take a common bottle with a broad mouth, and put a bung in it, with two apertures, through which you introduce two glass tubes. One of the tubes should pass to the bottom of the fluid, to let down the air from the atmosphere, and the air then rises up the fluid to the surface, and ascends the other tube, which merely passes through the cork, not descending so low as the surface of the fluid, and is breathed from at the opposite extremity by the patient. It is the simplest thing in the world, and can be employed without any expense.

Erysipelas of the Head.

The case of *erysipelas*, to which I alluded, was one that got well without any great merit of mine. It came in at the close of the disease, the violence was all over, the face had begun to shrivel, the inflammation had subsided to a brownish, pale red, and the danger of the affection had passed by. There are many cases of *erysipelas* that get well spontaneously. I could not learn what means had been adopted in this case before I saw the patient. There are some cases that will not recover without strong antiphlogistic means, and others in which good support is indispensable; and I have seen some cases where the patient's powers have been so enfeebled, that I have been obliged to give not only wine, but brandy. Here the patient had been ill fourteen days, and therefore you may suppose that I could do nothing to control the disease, especially as it was *erysipelas*

of the head. The epigastrium was tender, the tongue was red, and I understand, that at the first attack of the disease, the patient vomited. You find the mucous membrane of the air-passages frequently inflamed in this disease, as shown by cough, and expectoration, and dyspnoea; and frequently there is gastritis, as shewn by tenderness at the epigastrium, redness of the tongue, a sensation of heat in the stomach and up the oesophagus; often, too, the mucous membrane lower down is inflamed, so that you have diarrhoea, and sometimes abdominal tenderness. The mucous membrane of the air-passages was affected in this case; for the patient had a crowing cough, and the larynx was tender. Besides this, the internal part of the head was a little oppressed, so that she said her head felt very heavy. On account of the great heaviness of the head—knowing as I do, that in the latter days of *erysipelas* an inflammatory state is apt to take place within the head, in the external and internal portions of the arachnoid—I applied twelve leeches to the temples, and on account of the tenderness of the larynx, six were put there. That was all I could do, except to support her with milk. She took castor oil, to open her bowels. The heaviness of the head went away by the twelve leeches, the tenderness of the larynx by the six leeches, and the tenderness at the pit of the stomach was removed two days afterwards by the application of a blister.

The case is only instructive as pointing out that *erysipelas* is not simply a disease of the skin. You continually have three internal parts affected—the mucous membrane of the air-passages, the mucous membrane of the alimentary canal, and the serous membrane of the brain. Here there was tenderness of the epigastrium, at first vomiting, redness of the tongue; then with respect to the larynx, tenderness there, and a crowing cough; and then with respect to the head, great heaviness there; but all these were removed by the means employed.

Hepatitis.

There was presented in the same ward a woman who came in with a well-marked *hepatitis*, but not by any means violent; and the only interesting part of the case was, that the symptoms were so well defined as an affection of the liver. She had pain, not at the pit of the stomach, but at the right hypochondrium. She had pain up the right shoulder, extending, I see by the note-book, to the scapula. The pain at the right side was increased when she lay on the left: that is a common circumstance in inflammatory affections of the liver. You find in inflammatory affections of the heart, that patients are generally unable to lie upon the left side, in consequence of the violence with which the heart then thumps against the ribs; but in *hepatitis*, patients are generally

unable to lie on the left side, from the dragging of the great mass of the organ from the right side towards the left. There was not only pain in the right hypochondrium, but tenderness, — pain increased on pressure, the pain extending to the acromion of the scapula. The woman had a number of pustules all over the right hypochondrium, like small-pox pustules. How they had arisen, she said she did not know.

With respect to the *treatment*, I merely put her on slops, bled her to a pint, and purged her every day with sulphate of magnesia. After a few days there was still some little pain, and, her pulse being full, she was bled again to a pint. The case gave way so easily to bleeding and common purging, that I did not think it worth while to have recourse to mercury.

Respecting mercury, I may say that I doubt whether it is of more use in active inflammation of the liver than of any other organ. Its use is indisputable, but I have not seen it of any more service in hepatitis than in any other *itis*. It is not because there is inflammation of the liver that it is to be given, but because inflammation exists.

Acute-Chronic Bronchitis—Deformity.

There was a woman not presented, but who died in the same ward. She was admitted in a dying state; and, in fact, would not have been admitted here, as she came from an adjoining workhouse, had I not seen that there was an enlargement of the abdomen. Her legs were very much swelled; but on putting her to bed, I found that there was an affection of the chest, of which she was dying; and I found, likewise, what appeared to be a deficiency in the linea alba. There was mucous rattle all over the right side of the chest; respiration, however, could be heard in every part. She was a deformed woman. Her pulse was too weak for me to think of any depleting measures, and she was allowed six ounces of wine a-day, with arrow-root and eggs. She evidently was labouring under chronic bronchitis, affecting every part of the lungs, and attended by intense congestion; the lips and face were absolutely purple. Every part of her face would sometimes look really of a mulberry colour, just as though she was labouring under a communication between the two sides of the heart. You see frequently in bronchitis the same blueness or blackness of the face that you observe in the blue disease: it arises from the great accumulation of blood in the lungs; and, consequently, in all the veins. In consequence of the wine that was given her, she lived out two days, and that was all that could be expected. She was sinking at the end of an acute-chronic disease.

When persons are much deformed they are very liable to thoracic congestion, and to chronic bronchitis; and they are

also very liable to acute attacks from time to time supervening on the chronic state. On examining the abdomen of this woman, the recti muscles were situated more laterally than usual; instead of running straight down, they were separated to the right and left very extensively. There was a great deficiency of tendinous substance in the middle, so that the common aponeurosis under the integuments was in contact with the peritoneum. I think it likely that this was congenital: it caused a very singular circular tumor on the front of the abdomen, from the viscera experiencing so little resistance.

Rheumatism—Syphilis.

With respect to the men, gentlemen, there was a man presented with *rheumatism*, under which he had laboured for a year and a half. The case was a combination, as it appeared to me, of rheumatic and syphilitic affection, but it is sometimes difficult to make out these cases. He said that a year and a half ago he had gonorrhœa, and likewise chancres; but he had pains, not only in the bodies of the bones, but likewise in their extremities. There was ophthalmia of the right eye, and a great fullness of the head; drowsiness and giddiness.

He was bled to twenty ounces, and took blue pill, ten grains twice a-day. It was necessary to go on with these measures, and he was bled again to twenty ounces, and took a scruple of blue pill twice a-day. His head did not become better, and he was bled again to twenty ounces, still complaining of much drowsiness and pain of the head. His mouth then became tender, and the blue pill was reduced to five grains twice a-day. Notwithstanding this, however, his head still remained in pain, and it was necessary to bleed him to a pint. I kept him on low diet all the time, but still it was necessary to go on with this continued bleeding. If I had not had recourse to starvation, and not given mercury, such bleeding would have been highly improper: it might have been said that low diet would have answered the purpose; but that was not the case. I am convinced that there was more than syphilis, or the affection of the head would have got well by the mercury. The pains in his limbs became better, but those in his head continued; and I therefore judged it requisite thus to bleed him. He was better every time that he was bled. He was bled in the whole six times—three times to twenty ounces, and three times to a pint. He was a strong man, twenty-three years of age, and exceedingly powerful. I therefore saw my way clearly, and found that the disease would not give way to less bleeding than this. He was not only better and better every time he was bled, but not weakened by it, and eventually became perfectly well. The tenderness of his mouth was kept up by continual doses of

irritants, &c. would be as fully employed as mercury. This man was ordered ten blue pill, five or ten grains twice a-day, according to circumstances. I believe that many cases of an inflammatory nature are not cured because we do not persevere sufficiently in the treatment. He was a man of strong constitution: this made me bleed him without fear; and I was sure that no permanent debility would occur afterwards. It was not a case in which we need be afraid of the lancet, but one which, for want of active measures, might have gone on for months.

Acute Rheumatism.

There was a case presented in William's ward of *acute rheumatism*, in which the pain was not very considerable, and it speedily gave way to the exhibition of colchicum, half a drachm of the wine every six hours. The peculiarity of the case, however, was the profuse sweating, out of all proportion to the rheumatism. There were most inordinate sweats, of a very sour smell, which exhausted him considerably, and were attended by a hectic flush in the face. It appeared that the man would sink under these sweats if they were not arrested. The rheumatism soon became very trifling; but notwithstanding its decline, the sweats continued, and I began to have some apprehension that mischief would take place—that there might be some internal suppuration, though no local symptoms could be detected. I then gave him diluted sulphuric acid, half a drachm, with the colchicum, three times a-day, till the rheumatism went away, and then the sulphuric acid was given him alone. I put him on house diet, and allowed him a pint of porter daily. Under this treatment, the sweating presently diminished, and he went out quite well. *Acute rheumatism* is generally characterized by sweating. If you do not see sweating, this is generally because the patient is kept cool; and as soon as he is made warm, the sweating for the most part occurs.

Inflammatory Rheumatism—Power of Hydrocyanic Acid to stop vomiting induced by Colchicum.

There was another case of *rheumatism* presented, of an inflammatory nature, although it had existed four months. It is useful as shewing that a case may be of an active inflammatory character although it has existed for that length of time. It was attended by heat, and external heat increased the pain. The man got well under the use of a scruple of vinum colchici every six hours; but this is another case, where the colchicum produced vomiting, and in which the vomiting gave way to prussic acid. On the 14th of the month the colchicum was omitted, because it both purged him and caused him to vomit; but after

this the vomiting continued all that day and part of the following, till I ordered him two minims of hydrocyanic acid three times a-day. The vomiting ceased on the exhibition of the first dose of prussic acid. There now can be no doubt of the power of this remedy, and there is no occasion to multiply facts without end to establish a point that now cannot be disputed. I have seen vomiting that has continued for weeks cease on the first dose of prussic acid. Of course you cannot always expect to be so fortunate as this; but you will in general ultimately be able to stop it, and every now and then you will find instances where the first dose answers. That was the case in this man. I began with two minims, because I was anxious to put a stop to the vomiting at once, but it is generally better to begin with only one minim.

Scrofulous Deposition in the Mesenteric Glands—Ulceration of the Intestines.

There was a man who died of a very distressing disease. He suffered dreadfully, and you must have seen him many times. He was a man who had been in the habit of drinking, and was likewise a painter. The symptoms when he came in were emaciation, and great paleness of face, such as you notice in painters, and which is very characteristic of them—a sort of doughy, pasty look. There was besides tenderness of the abdomen; he was continually suffering under a very severe sharp pain. He had been ill a-year, and was clearly labouring under a chronic organic abdominal disease. There was no enlargement to be found in any part of the abdomen, but there was very great tenderness on pressure. By poulticing the abdomen—by applying a few leeches to it from time to time—he was relieved, and he fancied he was getting better; but attack after attack of inflammation came on, making it pretty certain that there must be organic disease, which gave rise, from time to time, to inflammation of the peritoneum. There was chronic disease going on within the intestines and mesenteric glands, and the peritoneum externally became inflamed. He became too weak to allow of the continued application of leeches, so that I was obliged at last to content myself with blisters, a large quantity of opium, and a mustard poultice. He was admitted on the 13th January; he took opium, both by the mouth and by injection; and at last I was obliged to allow him wine. He became more and more emaciated, and sunk in the midst of this dreadful suffering. He had likewise cough and expectoration, of a purulent character: that, however, came on latterly.

On opening the abdomen there was found very great disease, which was unquestionably of a scrofulous character. I did not suppose there could be any thing malignant

at all on account of his peculiar look. There was no sallowness of countenance, but a downright pasty paleness. The mesenteric glands were found very much affected, as you see in the parts which are now before you, and the intestines were found in a state of most extensive ulceration. At one part the intestines were very much thickened, almost cartilaginous; it would not be right to say scirrhus; but, from the chronic inflammation, they had become excessively hard. The intestines, too, had given way in some parts, so that effusion had occurred into the peritoneum externally to the intestines. Here and there the peritoneum had become adherent, lymph was poured out, and matter likewise existed. I now shew you the intestines, and you will see the state the mesenteric glands are in. Here are scrofulous tubercles in them: all the mesenteric glands were in this state. The internal surface of the intestines shew an immense number of ulcerations. They have been in pickle, and therefore they do not look as they did when they were fresh. There were an immense number of transverse ulcerations extending around the intestines, till they met, in the direction of the circular fibres, with round, elevated, smooth, red edges. This appearance has now almost disappeared. It is very probable that the disease of the mesenteric glands arose from these ulcerations. The ulcerations had nearly extended through in a great many parts, and nature had endeavoured to prolong life by producing adhesions externally, so that the intestines were glued to each other, and glued to the parietal peritoneum. A great quantity of lymph had been effused here and there, the formation of which had given rise to the violent pain of the abdomen; but in some parts nature had at length failed, and there were apertures from the ulceration, and much fluid was effused, as is not unfrequently seen, into the lower part of the pelvis. Notwithstanding the very extensive ulceration of the inner surface of the intestines, however, there was a very large quantity of the most healthy feces in the large intestines. They were firm, but not improperly solid, and of a bright yellow colour; in fact, presenting as healthy an appearance as ever I saw. I do not believe it is possible ever to say, with certainty, that there is ulceration of the intestines; mere chronic inflammation will, I know, produce exactly the same symptoms—violent purging, discharge of blood, and something like pus—for what I know, really pus, or mucus very much like pus, with extreme emaciation. Formerly I frequently was surprised to find no ulceration where patients died emaciated after diarrhoea, with bloody puriform stools; but now I am not surprised at it. So common is the occurrence that I never venture to say that the intestines are ulcerated, for I know that, in the worst state of things, they may only

be in a state of chronic inflammation. The lungs are not preserved, but they were in a state of scrofulous ulceration at the upper part. In a case of this description, of course I could do nothing but palliate symptoms.

Chronic Disease of the Larynx.

A case likewise proved fatal, of disease of the larynx. A man was admitted on the 17th February, with disease of that part, who had been ill four months. He was a waterman, and consequently much exposed to cold and wet. He had been ill the winter before last, but had got better in the summer,—not quite well, but better. His symptoms, at admission, were hoarseness of voice and hoarseness of cough; for hoarseness may affect both. There was no tenderness of the larynx, but slight expectoration, which, he said, had been a little streaked with blood. Now this was all, except that he looked thin. There was no sign of disease of the lungs, and the hoarse voice and harsh cough, though unaccompanied by tenderness of the larynx, left no doubt whatever in my mind that his disease was simply a chronic affection of the larynx. I would say the same with respect to disease of the larynx that I said with respect to ulceration of the mucous membrane of the intestines. I do not believe that it is possible to say with certainty whether a person has merely chronic inflammation or has ulceration, or some peculiar organic disease of the larynx. I wrote at the head of the bed "*morbus laryngis*" only. I have frequently seen great hoarseness of voice and cough, and mucous or puriform expectoration, with tenderness on pressure of the larynx, and yet, on opening the body, I have found no ulceration. Sometimes I have found thickening—sometimes I have found very great roughness, but without ulceration; sometimes I have found excrescences, sometimes great ulceration; but I do not know any symptoms that will enable one to say with certainty which of these various states exist; unless, indeed, you see ulceration on looking into the throat. If there be a hissing noise in the voice and respiration, you may conclude that the passage is narrowed; but then I do not think you can say whether there are excrescences or merely great thickening of the affected part, or what is the cause of the narrowness.

Now if there be anything more than common chronic or syphilitic inflammation or ulceration, I do not think you can do good in these cases. It is right always, except in syphilitic cases, to begin by treating these cases as if there were simple inflammation or simple ulceration. Indeed the only difference between the treatment of common inflammation and syphilitic in these cases, would be that (unless where much inflammation was present) in the latter mercury alone would be trusted to; and, in all simple cases, leeches,

leeches to the larynx every other day, and ten grains of blue pill twice a day. I did not see any reason for supposing there was any thing syphilitic in the case, and he said that he had never had syphilis in his life; but in chronic inflammation of these parts, as of so many others, I know mercury is an excellent medicine. I have tried balsam of copaiba, and various other things, but they have been very unsatisfactory in my experience. I ordered him likewise, in case there should be ulceration, to inhale some chlorine; but I do not know whether it was ever put into practice, for all at once, while he was sitting up at breakfast, as well as usual, he was seized with a difficulty of breathing, fell back in bed, his respiration became very croopy, and he never spoke again. It occurred before I arrived at the hospital, and I see he was ordered a mustard poultice to the neck, and, as soon as it had drawn, a blister, and half a drachm of spiritus ammoniæ compositus in camphor mixture. He lived, I understand, about two or three hours, and then expired, without having spoken after the commencement of the attack. This is an event that continually occurs in the slightest disease of the larynx. I had two patients in this hospital, who had only a slight sore throat, within these two years, which attracted no attention; but in a moment they fell back—one died before any thing could be done, and the other died in a few hours, before I saw her. In all diseases of the larynx, from the most violent down to the slightest inflammation, there is this danger; the patient is in constant danger of spasmodic asphyxia. The parts are so irritable by nature that they are easily thrown into a violent spasm, and the glottis is shut immediately, so that the patient may die as if a ligature had been passed round, and he had been hanged. In other cases, however, respiration is only greatly impeded; and such was the case in this man. The same occurrence happened to a patient of mine two years ago, when one of my colleagues was passing round with his dresser; the man suddenly fell back in his bed. He was here for a very different complaint, and had nothing but a slight sore throat, for which I had ordered six leeches, but it so happened that the inflammation inclined a little towards the larynx, and spasm of it was accidentally excited; and he died while all the parties were in the ward. I was not there at the time. There was nothing found after death but the very slightest inflammation just about the glottis.

Now in the instance before us there was considerable disease of the larynx, as I will shew you; quite sufficient to account for all the symptoms. Here was, in the first place, thickening of the whole epiglottis. The mucous membrane and the cellular membrane underneath are in a state of considerable hypertrophy also at the glottis; and you observe an ex-

sive growth in one spot, at the left side of the opening, an excrescence almost like fat in appearance. Then within you will find hypertrophy of the same structures. The left side of the interior of the larynx you see is very much thickened, and within the corresponding sacculus a deep ulceration exists, so that the cartilage grates under a probe introduced into it, like a carious bone. The perichondrium is gone. If in this man, at the moment of sudden dyspnoea, an opening had been made below those parts which were in a state of irritation and spasm, he would have survived that one attack: but with such disease of the larynx he, of course, would ultimately have died.

Disease of the Heart—Ulceration.

Before we part I wish to shew you a heart, taken from a patient who was under the care of one of my colleagues, for the purpose of adding to our facts respecting a disputed point in auscultation. From the ward-book it appears, that, besides other symptoms to which I need not allude, the patient had a bellows-sound *after* the pulse; I understand from several gentlemen that this was distinctly the case. Now if the auricles contract after the ventricles you must expect that the obstruction which gives rise to a bellows-sound immediately after the pulse, will be between the auricles and ventricles; but if the auricles contract before the ventricles, then the bellows-sound from a diminished auriculo-ventricular opening will be heard, of course, before the stroke of the heart and the pulse,—before the contraction of the ventricles. Now here the sound was *after* the pulse, and here is the mitral valve in a state of great disease; so that a considerable obstruction existed to the course of the blood from the left auricle into the left ventricle. Here is the left ventricle laid open, and the aortic valves are all sound, but here is such a diminution of the left auriculo-ventricular opening as you seldom see. It is well for us all to collect these facts. This you see is a considerable diminution; we may often have a diminution of this opening, but not to such an extent.

I may add, that this heart affords an instance of a disease that you will not meet with every day—*ulceration of the heart*. Here is an ulcer in the inner part of the left ventricle. In a short time this would have extended nearly through, and rupture would have taken place, and the man would then have died of a broken heart. There is no symptom, auricular or common, that points out the process of ulceration. Those gentlemen who were in the habit of seeing and listening to this patient before death, will be struck with the seat of the obstruction; they all heard the bellows-sound immediately after the pulse, and you see that the obstruction is between an auricle and ventricle.

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OBSERVATIONS
ON
CALCULOUS DISEASES.

By B. C. BRODIE, F.R.S.

As delivered by him in his Surgical Lectures.

Calculi of the Bladder—continued.

MANY of the observations which I have hitherto made are applicable to cases of calculi in the female, as well as to those of calculi in the male bladder. Others are applicable to the disease in the male sex only; and something is still necessary to complete the history of it in the female.

In women, for reasons which I have already mentioned, the disease is comparatively rare. It is of course difficult for an individual to form an estimate of the number of cases which occur in women as compared with those which occur in men; but, judging from what has occurred in my own practice, I should say that the proportion is nearly as one to fifteen or twenty. In women the disease occasions a frequent inclination to make water. There is pain, especially after making water, referred to the extremity of the urethra. The urine is tinged with blood after taking exercise, and it undergoes the changes which cause the deposition of the triple phosphate, and afterwards that of the phosphate of lime, such as I have described in speaking of the disease in the male sex.

Diagnosis of Calculus in the Male Bladder.

You must of course satisfy yourself in the first instance whether a calculus
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actually exists in the bladder. The symptoms in general are sufficient for this purpose; but you must not rely on the symptoms only. They will rarely mislead you, but they will sometimes. There may be a stone in the bladder without the usual symptoms; and there may be many of the usual symptoms without a stone in the bladder. In children, especially, the deposition of lithic acid sand by the urine will not unfrequently produce, not only pain in the glans, but bloody urine, and all the other symptoms of stone in the bladder. A boy, between four and five years of age, was brought to me who had a constant inclination to make water. He screamed with pain as the urine flowed; he was perpetually squeezing the extremity of the penis between his fingers, as if he referred the pain to that part; and the urine was frequently deeply tinged with blood. I scarcely entertained a doubt that there was a stone in the bladder. I examined the bladder in the way which I shall explain to you presently, but no stone was discovered. I examined it again and again, but still there was no stone. I then inquired more particularly into the child's health in other respects, and the result was, that I was led to prescribe an occasional dose of calomel and rhubarb, with rhubarb and sal polychrest in the intervals; and under this simple plan of treatment all the symptoms disappeared in the course of a few weeks.

Before you venture to give a positive opinion as to the presence of a calculus in the bladder, you must examine the latter by means of an instrument introduced into it by the urethra. Thus the stone may be made cognizable to the senses, and you may know that it exists,

as much as if you actually saw it. We commonly employ for this purpose the instrument which I shew you now, an iron sound. It is shaped like a catheter, but it is rather longer than the catheter towards the point, in order that a larger portion of it may enter the bladder, and that it may be capable of reaching quite to the fundus. The sound ought to be large enough nearly to fill the urethra, but not to stretch it. If it be too large it is closely embraced by the urethra, and the free motion of it in the bladder, so necessary for detecting a calculus, is prevented. The handle of the sound should be flattened, smooth, and polished, in order that the fingers may be in contact with as many points as possible. In general we introduce the sound while the patient is lying on his back, with his shoulders a little elevated; but sometimes we detect the stone more readily when the patient is in the erect posture. It is also more easy to discover a small stone if there be some urine in the bladder, than if the bladder be altogether empty. In the latter case the stone is liable to be concealed, and defended from the contact of the instrument, by a fold of the mucous membrane. Where the stone is large, whether there be, or be not urine in the bladder, the sound strikes it readily, and at once. If the stone be small, it is often necessary to carry the sound carefully from one part of the bladder to the other, and examine the different parts in succession, before the stone can be discovered. If the symptoms of stone are well marked, it will be unwise of you to conclude that there is no stone because you do not perceive it on the first examination. I have known the most practised surgeons, with the most delicate sense of touch possible, use the sound several times, where the stone was of a small size, before they felt it so distinctly as to be satisfied of its existence.

In some cases, a stone which has not been discovered by means of the sound is at once detected by means of the elastic gum catheter. This is an observation of Sir Everard Home's, the correctness of which I have had frequent opportunities of verifying. The gum catheter should be introduced without the iron stilette, while the patient is standing, with his bladder full of urine. You allow the urine to flow through the

catheter, and as the last portion of it comes away, the stone falls down on the extremity of the instrument, in withdrawing which you feel it quite distinctly. Judging merely from the texture of the gum catheter, I never should have believed it capable of affording such certain evidence of a stone in the bladder as I know it does from experience.

In some instances you may feel a stone in the bladder with the finger introduced by the rectum. This method of examination is often useful in children, where the stone is above the middle size. It seldom affords you any assistance in the adult, except where the stone is of extraordinary dimensions.

It is not sufficient that you should ascertain the existence of a stone: it is of importance also that you should, if possible, learn something as to its size and composition.

You cannot, of course, actually measure, or determine accurately, the size of a stone which lies concealed in the bladder; but nevertheless you may form some notion on the subject which will not be very far from the truth. If the symptoms shew that the stone has existed only a short time in the bladder, and the urine has been, and is, of an acid quality, you may conclude that it is, in all probability, composed either of lithic acid or of oxalate of lime. Such stones are not of rapid growth; and under these circumstances it is not probable that the stone can be of large dimensions. But if the urine has become alkaline, you will know that the last deposited layers of the stone are composed of the phosphates; and stones of this last description are of more rapid growth, often attaining a considerable size in a moderate space of time. Whatever may be the composition of the stone, if it has existed for a great number of years it is to be expected that it will prove to be a large one. These considerations, however, carry you only to a certain point. You may obtain a more precise knowledge in the following manner. Measure the stone, by causing the convex part of the sound to traverse its upper surface from one extremity of it to the other. When the bladder is full of urine, strike the stone with the sound, or with the end of the gum catheter. Observe what quantity of force is necessary to push it out of the situation in which it lies, and accordingly as

it is displaced easily or with difficulty, so you may form an estimate of its weight and magnitude.

Treatment of Calculi of the Male Bladder.

When a stone passes from the kidney into the bladder, the diameter of which is less than that of the urethra, it is usually conveyed into that canal by the impulse of the stream of urine, and thus the patient gets rid of it. Sometimes, however, even a very small stone is prevented escaping in this manner, in consequence of an enlargement of the prostate gland, forming a tumor projecting into the bladder, and making a kind of valve behind the orifice of the urethra. Many a person is liable to the descent of calculi from the kidney for many years, which are always passed with the urine, until he becomes somewhat advanced in life. Then the prostate becomes enlarged, and the calculi, which descend afterwards, are lodged in the bladder.

Under these circumstances, it will be prudent for the patient to void his urine lying on his face, or leaning very much forward, so that what we call the anterior may become the depending part of the bladder. You will observe that the valve made by the projecting tumor of the prostate is almost invariably on the posterior part of the bladder—that is, towards the rectum; and if the patient voids his urine in the posture which I have mentioned, the stones are less likely to be interrupted by it than if he voids it in the usual manner. This, at least, is good in theory, and I may say that it is good in practice also; for a patient of mine, an elderly gentleman, whom I advised to do what I have just mentioned, very soon became relieved of a small stone which had been for some time in the bladder.

A stone which is of larger diameter than the urethra, of course cannot be voided by the urethra. But you may dilate the urethra; and by doing so I have, in a great many instances, enabled the patient to pass a stone which had been for some weeks, or even for some months, in the bladder, and which he certainly could not have voided otherwise. The case here admits of little delay. Every day adds to the bulk of the stone, and diminishes the chance of success. Introduce a bougie, or a metallic sound, of such a size as

the urethra will admit without inflammation being induced. Every day, or every other day, according to circumstances, introduce one a little larger; and thus you may dilate the urethra gradually, until it is a good deal larger than its natural size. The degree of dilatation of which the urethra is capable, varies in different cases; but it is generally considerable. When this process has been carried as far as it can, let the patient drink plentifully of diluting drinks. It may be worth while even to give some of the compound spirit of juniper, or other diuretic, at the same time; and the calculus will probably, some time or another, be carried, by the current of urine, into the dilated urethra. You may add to the chance of the expulsion of the calculus by adopting the followed method. Once daily introduce a large bougie into the urethra and bladder, and there let it remain. Then let the patient drink plentifully of barley-water, or toast and water, or weak tea; so that the bladder may become loaded with urine. When the patient can bear the distention of the bladder no longer, let him place a vessel on a chair, standing, and leaning forward over it. Then let him withdraw the bougie; the urine will follow it in a full stream, and the calculus may probably accompany it. I learned this mode of treatment from a patient who contrived it for himself, and who in this manner became relieved of three considerable calculi, for which an intelligent and experienced surgeon, in a provincial town, had recommended him to undergo the operation of lithotomy.

If a small stone cannot be made to pass in the way that I have mentioned, you will probably succeed in extracting it from the bladder by means of the urethra forceps. Indeed I may say that you will never fail in doing so, unless the stone is beyond a certain magnitude, or there is something in the condition of the bladder to prevent it retaining a moderate quantity of urine; or unless there is a large tumor of the prostate projecting into the bladder, behind which the calculi may lodge, out of the reach of the instrument.

I cannot but regard the invention of this method of extracting small calculi from the bladder, as one of the greatest achievements of modern surgery. The credit of it belongs to a gentleman who has contributed largely,

in a great number of other ways, to the benefit of mankind, and the improvement of our interesting and important art. I need not tell you that I mean Sir Astley Cooper. But even he would not have been able to succeed in the plan which he had conceived, if he had not been aided by the mechanical talents of Mr. Weiss, who, when the object in view was explained to him, with his customary zeal and readiness contrived the forceps which I now shew you. I need not give you a particular description of their construction, as you may examine them for yourselves. But you will observe, that they admit of being opened and closed in the bladder, without distending or otherwise irritating the canal of the urethra. When you employ these forceps, the bladder should always contain a moderate quantity (that is, from six to eight ounces) of urine. If the patient, however, has lately made water, you may inject some tepid water into the bladder through a catheter, which, of course, will answer the same purpose. It is generally prudent to ascertain first where the stone lies in the bladder, by examining it with an iron sound. Then introduce the forceps in their closed state, previously warmed and oiled, directing them towards the stone; and when you feel them resting lightly on it, open the blades cautiously, and endeavour to seize it. If you succeed, and the stone is of a small size, you easily extract it. The forceps do not close on the stone with much force, or make much pressure on it; but they are themselves compressed and squeezed by the neck of the bladder, and afterwards by the urethra; and thus the stone is firmly grasped, and prevented dropping out of the instrument. In this manner Sir Astley Cooper has succeeded, in a great number of instances, in removing small stones from the bladder, which otherwise would have increased in size and made the patients the subjects of a serious operation. If I remember rightly, he extracted as many as eighty stones, of various sizes, from the first or second patient to whom he applied this mode of treatment. I have also employed this method with success in many instances. My first patient was a gentleman who had a sac containing a number of small calculi in the prostate gland. These I extracted with great facility—sometimes three or four in the

same day. When this sac was emptied, I found that there were also a number of stones in the bladder, and these I extracted, one after another, in the same manner—three or four score in all. This gentleman lived in the country; and what I have now mentioned was accomplished when he visited London, in two successive years. But the case was a complicated one, and I shall have occasion to refer to it again when I call your attention to the subject of prostatic calculi. All that I need say of it further at present, is, that a year after the last calculus was extracted by the forceps, the patient died of extensive disease of the bladder and kidneys.

But these forceps are capable of seizing a calculus of very considerable dimensions; and not only capable of seizing, but of extracting it, by a slight modification of the operation. The neck of the bladder admits easily of a great degree of dilatation. It is not so with the urethra. An elderly gentleman consulted me with symptoms of stone in the bladder; but the symptoms were not severe, and I was led to believe that the stone was probably small enough to be extracted by means of Weiss's forceps. The first time that I introduced them into the bladder I seized the stone. I drew it readily through the neck of the bladder; but I found from the expanded state of the forceps that it was much larger than any of those which I had previously extracted in this manner. When I had drawn the stone some way into the urethra, it was evidently impossible to draw it further without lacerating the membrane of the canal. But I could feel the stone distinctly in the perineum. Nothing appeared more simple than the removal of it by means of an incision made behind the scrotum. Holding the handle of the forceps with one hand, and in such a manner as to cause the stone to project in the perineum, with a scalpel in the other hand, I divided the skin and other soft parts over it. The stone was easily disengaged from the blades of the forceps, and taken out through the wound. Some months afterwards the patient came to me again, and I found another considerable stone in the bladder, which I removed in the same manner. You see, in this preparation, the two calculi which I have just mentioned. The largest of them is seven-eighths of an inch in one diame-

ter, and six-eighths in another; and the other is only a very little smaller; the difference between the two being scarcely perceptible to the eye.

The wound in the perineum in each of these cases healed very readily. But in another case I did what, with the experience which I now have, I shall be inclined, if possible, to avoid in future. I extracted the stone which I now shew you from the bladder with the urethra forceps, and drew it with some difficulty into the urethra, as far forward as that part of it which is immediately before the scrotum. In this situation I made an incision on it, and having disengaged it from the forceps, took it out through the wound. This was accomplished easily enough; but there was a good deal of trouble in healing the wound, in consequence of the urine dribbling into the cellular membrane of the scrotum, and producing a succession of troublesome abscesses.

I cannot doubt that this method of extracting calculi with the urethra forceps admits of much further improvement; and the modification of the operation, which I am about to describe, may probably be applied with much advantage to many cases.

I have already explained to you, that if you introduce a gum catheter, and draw off the contents of the bladder, where there is a small calculus, it very frequently happens, as the last portion of the urine flows, that the calculus is thrown down, as it were, on the end of the instrument. Then, it occurred to me, that if a catheter could be made to open like a pair of forceps, the calculus would very probably fall into it; that if it did not do so at one time, it would do so at another time, and that thus it might be extracted without searching and irritating the bladder—with little or no pain to the patient, and little or no trouble to the surgeon. With these impressions on my mind, I contrived the instrument which I now shew you. It is a pair of forceps with two blades, the opposite surfaces of which are made rough, like a rasp or coarse file. They open by withdrawing a tube, which encloses them, on the principle of one kind of bullet forceps, or of the French lithontriptic instrument. But the forceps are themselves a hollow tube, so that whenever the blades are separated, they answer the purpose of a catheter; allowing the urine to flow out of the bladder.

Since this instrument was constructed, I have had only one opportunity of employing it, and that very lately. A gentleman consulted me with slight irritation of the bladder. I examined the bladder with an iron sound, and detected in it a very small calculus. I then dilated the urethra to its utmost extent. This was easily accomplished, but the calculus did not come away. I introduced Weiss's original urethra forceps, but the stone eluded my search. I therefore introduced my new forceps, the bladder being full of urine; and the blades being expanded, of course the urine flowed. When the bladder was empty, I endeavoured to close the forceps, but found that I could not do it. In fact, the stone was seized, and it was easily removed. It was of the size of a large pea; and the patient suffered not the smallest inconvenience from the operation.

AN ACCOUNT
OF A
MODE OF TYING UP & ENCASING
THE PENIS,

Adopted by the Natives of some of the Islands of the New Hebrides group, in the Southern Pacific Ocean; and of a similar Custom which obtains with a certain Tribe on the S. E. coast of Africa.

By GEORGE BENNETT,

Member of the Royal College of Surgeons of London, &c. &c.

THAT class of people resembling the Negro race, and which is distributed over a large portion of the globe, from the Andaman Islands, in the Bay of Bengal, and many parts of the Indian Archipelago, to New Guinea and the New Hebrides group, has excited much interest, and been a frequent subject of speculation amongst those who pursue the investigation of the varieties of the human race, and their probable origin. The questions of from what parts of Africa, and at what time they emigrated, cannot in the present state of our knowledge be satisfactorily answered; our only hopes of solving these problems is by observing, as far as possible, the coincidences existing between the Polynesian and the African Negroes in manners, customs, language, &c.: it is remarkable that but few observations

have hitherto been made respecting the before-mentioned class. In the East Indian Islands they inhabit generally, and I believe invariably, the mountains of the interior, are savage in the extreme, and have little or no intercourse with the other tribes in their vicinity; hence Europeans have had no opportunity of seeing them in their native state, except occasionally a solitary individual who has been captured. The islands in the Southern Pacific Ocean, inhabited by this race, have been but very rarely visited, from the savage disposition of the natives. From these circumstances, but few facts have been collected which will enable us to form a correct hypothesis concerning their origin. Mr. Crawford, in his excellent work on the Indian Archipelago, vol. i. pp. 23, 24, makes the following observations on the Papua, or Negro, inhabiting those islands:—"The Papua (the word *Papua* is a corruption of *Pua-Pua*, the common term by which the brown-complexioned tribes designate the whole Negro race,) or woolly-haired race of the Indian Islands, is a dwarf African Negro. A full-grown male, brought from the mountains of Queda, and examined with great care by my friend Major Macinnes, proved to be no more than four feet nine inches high. Among those brought from the other extremity of the Archipelago, from New Guinea and the adjacent islands, and whom I have seen as slaves, I do not think I ever saw any that in stature exceeded five feet. Besides their want of stature, they are of spare and puny frames. The skin, instead of being jet black, as in the African, is of a sooty colour. Sir E. Home, who carefully examined the individual brought to England by Sir S. Raffles, makes the following distinctions between the Papuan and African Negro:—"His skin (speaking of the former) is of a lighter colour, the woolly hair grows in small tufts, and each hair has a spiral twist. The forehead rises higher, and the hind head is not so much cut off. The nose projects more from the face. The upper lip is longer and more prominent; the lower lip projects forward from the lower jaw to such an extent that the chin forms no part of the face, the lower part of which is formed by the mouth. The buttocks are so much lower than in the Negro, as to form a striking mark of distinction; but the calf of the leg is as

high as in the Negro.' It is only, indeed, in mere exterior stamp that the puny Negro of the Indian Islands bears any resemblance to the African, who, in vigour of frame, and capacity for enduring fatigue and labour, is superior to all the rest of mankind, the European race excepted."

We are, however, too liable to form hasty general opinions from the appearance of a few instances. The first view that I had of the natives of Erromanga, one of the New Hebrides group, led me to form an opinion that they were a diminutive race, but subsequent opportunities of observation dispelled the opinion I had too hastily formed; as I observed stout, muscular men amongst them, varying in height, from five feet to five feet eight inches, while, as regarded colour, some were much darker than others. At Manilla I had an opportunity of seeing a Negro from the mountains in the interior of the island of Luçon, and his general appearance was very similar to that of the natives of Erromanga: he was a muscular man, and his height was apparently about five feet six or seven inches.

It is well known that the numerous tribes of Africa vary in their general appearance as well as in their manners, customs, language, &c.; therefore any analogy that can be drawn between the Negro race in the Polynesian or Indian Archipelago, and any of the African tribes, is more likely to lead to the discovery of the particular part or tribe of Africa whence they originated. Having this object in view, I have now to bring forward a custom which exists at Erromanga, Tanna, and other islands forming the New Hebrides group, in the Southern Pacific Ocean, (the natives of which islands are decidedly of an African character), and a similar custom adopted by a tribe inhabiting the S. E. coast of Africa. It was during a visit to the island of Erromanga, in August 1829, and another subsequently to the island of Tanna, in April 1830, that I had an opportunity of witnessing the peculiar method adopted by the natives of encasing and tying up the penis. At Erromanga, the mode they adopt for the concealment, or rather partial concealment, of that which modesty dictates should be hidden, is as follows:—"The glans penis, and about two inches below, is tied round with long strips of the plantain leaf; over

these others are again placed, which are permitted to extend a long distance beyond the penis, and are tied at the extremity, which, reaching nearly to the ankles, appears to be an elongation of that organ, and to a stranger has a remarkable and ridiculous appearance. The other part of the penis is left uncovered, and they seem to consider that in the process just mentioned they have done all that modesty requires. The women of the same island simply wear around the waist a bundle of strips of the plantain leaf, dried and neatly fringed at the edges. At the island of Tanna, the mode adopted by the male natives of the neighbouring island of Erromanga has been improved upon, and is as follows: the penis is at first bound round, at about half of its length, with leaves, or pieces of native cloth, &c. and afterwards covered by a neat mat, either formed of the fine bark of a tree or of the leaves of the pandanus. These mats vary in length from seventeen to twenty-four inches, and in breadth from six to eight inches, and are named by the natives *opitau-arapu*, or *tapono*. They are placed over rather more than half of the penis, the remaining portion hanging beyond; it is then tied round the body by a long cord, passing several times round the waist, formed, in a very neat manner, of braided human hair, or of a peculiar kind of cord of native manufacture (some of the cords of braided hair in my possession, procured from the native, are from ten to fifteen fathoms in length). The natives seem to consider it an immodest act to expose the part of the penis so covered, as I have frequently observed them turn aside when they had taken the mat off, and substitute leaves, &c. in its place. Strips of canvas, or cotton cloth, were excellent articles for trading with them for trifles, and were immediately applied to a similar purpose as the mats, and the wearer was generally not a little proud of his acquisition. The natives of the island of Annatom (another island of the same group) also adopt a similar method to those of Tanna; and the following anecdote was related to me by Capt. Henry, of the schooner *Minerva*, of Tabiti, which occurred during his visit to the island:—During his visit to Annatom, one of the natives slept on board during the night in the same cabin

with himself. In the morning he missed his handkerchief. The question was, who could have taken it? Suspicion might have fallen on his companion, but where could the poor naked savage have concealed it, had he done so? Search was made, therefore, over the cabin, but no handkerchief could be found. It unfortunately happened for our dark friend that he had not sufficiently exercised his “secretiveness and caution;” for a small end of the handkerchief was seen peeping from its confinement between the penis and the *tapono*, or mat, which led to his detection; and on the mat being taken off, the handkerchief was found bound round underneath. On being detected he did not express any fear, but laughed heartily, as if he considered it an excellent joke. I also saw and procured, at Tanna, a small kind of mat formed of interwoven human hair, which is also used for covering the penis, underneath the mat before-mentioned. The dress of the females at Tanna is similar to that of the neighbouring islanders of Erromanga.

I now proceed to notice a similar custom which exists among the natives of Kalembe, Delagoa Bay, on the S. E. coast of Africa, for the account of which I am indebted to the kindness of Lieut. Brand, R. N.; and the following is an extract of a letter I received from him on this subject:—

“His Majesty’s sloop *Cygnat*, to which vessel I then belonged, sailed from the island of Mosambique, accompanied by his Majesty’s ship *Andromache*, on the 18th December, 1823, and arrived at Melville anchorage, the entrance of Delagoa Bay, on the 27th of the same month. Whilst lying at this place two of the natives came on board; they were nearly black, rather tall, and well proportioned; their heads were shaved, leaving a tuft of hair on the upper part only. They were quite naked, excepting in the peculiar manner of covering the penis. This was so extraordinary as to excite the risibility of all on board. The penis was encased in a long tube neatly formed of grass. These tubes varied in length, from eight to twelve inches, and the manner in which the penis is drawn into them is very curious. It is at first tightly bandaged with grass cloth or strips of cotton cloth, the end of which is introduced into the tube, and drawn close up; it is

then secured to the upper part of the tube, leaving a long end of the bandage hanging down. A slight cord of grass or hide is then passed round the waist, for the purpose of keeping the machine in an upright position.

"On my arrival in England, I became acquainted with Mr. Alick Osborne, surgeon of H.M.S. Lieven. This gentleman was on the S.E. coast of Africa, during the survey of that part of the coast by Captain Owen, and saw many of these natives. He favoured me with a lithographic sketch, with permission to use it as I pleased: as it fully illustrates what I have attempted to describe, I have sent it."

On taking leave of this subject, I may express a hope that these analogous facts will cause other comparisons to be instituted, which will tend to bring to some satisfactory termination the various speculations that exist respecting the origin of the Papuan from the African tribes.

London, May 16, 1831.

ON THE SYSTEMS OF LAVATER AND GALL.

By the Author of "CALEB WILLIAMS *."

[THE most rational views of phrenology we have met with, are those contained in Dr. Elliotson's clinical lecture, Gazette, No. 179. Previous to the publication of this the following paper had been put in type, and it was our intention that the two—one for, and the other against the doctrine—should have appeared together. The great length of Dr. Elliotson's lecture rendered this impossible: but we are desirous, while it is yet fresh in the memory of our readers, to submit to them the paper which follows.—*Ed. Gaz.*]

THE following remarks can pretend to be nothing more than a few loose and undigested thoughts upon a subject which has recently occupied the attention of many men, and obtained an ex-

traordinary vogue in the world. It were to be wished that the task had fallen into the hands of a writer whose studies were more familiar with all the sciences which bear more or less on the topic I propose to consider; but if abler and more competent men pass it by, I feel disposed to plant myself in the breach, and to offer suggestions which may have the fortune to lead others, better fitted for the office than myself, to engage in the investigation. One advantage I may claim growing out of my partial deficiency. It is known not to be uncommon for a man to stand too near to the subject of his survey to allow him to obtain a large view of it in all its bearings. I am no anatomist: I simply take my stand upon the broad ground of the general philosophy of man.

It is a very usual thing for fanciful theories to have their turn amidst the eccentricities of the human mind, and then to be heard of no more. But it is, perhaps, no ill occupation, now and then, for an impartial observer to analyse these theories, and attempt to blow away the dust which will occasionally settle on the surface of science. If phrenology, as taught by Gall and Spurzheim, be a truth, I shall probably render a service to that truth by endeavouring to shew where the edifice stands in need of more solid supports than have yet been assigned to it. If it be a falsehood, the sooner it is swept away into the gulph of oblivion the better. Let the inquisitive and the studious fix their minds on more substantial topics, instead of being led away by gaudy and deceitful appearances. The human head, that crowning capital of the column of man, is too interesting a subject to be the proper theme of every dabbler; and it is obvious that the professors of this so-called discovery, if they be rash and groundless in their assertions, will be in danger of producing momentous errors, of exciting false hopes never destined to be realised, and of visiting with pernicious blasts the opening buds of excellence at the time when they are most exposed to the chance of destruction.

I shall set out with acknowledging that there is, as I apprehend, a science in relation to the human head, something like what Plato predicates of the statue hid in a block of marble. It is really contained in the block; but it is only the most consummate sculptor that

* Slightly abridged from an essay in an admirable volume recently published, entitled "Thoughts on Man, his Nature, Productions, and Discoveries; interspersed with some particulars respecting the Author. By William Godwin." pp. 471. London, 1831. Effingham Wilson.

can bring it to the eyes of men, and free it from all the incumbrances which, till he makes application of his art to it, surround the statue, and load it with obscurities and disfigurement.

Nothing can be more true than the proposition—that real science is, in most instances, of slow growth, and that the discoveries which are brought to perfection at once are greatly exposed to the suspicion of quackery. Like the ephemeron fly, they are born suddenly, and may be expected to die as soon.

Lavater, the well-known author of *Essays on Physiognomy*, appears to have been born seventeen years before the birth of Gall. He attempted to reduce into a system the indications of human character that are to be found in the countenance. Physiognomy, as a subject of ingenious and probable conjecture, was well known to the ancients. But the test, how far any observations that have been made on the subject are worthy the name of a science, will lie in its application by the professor to a person respecting whom he has no opportunity of previous information. Nothing is more easy, when a great warrior, statesman, poet, philosopher, or philanthropist, is explicitly placed before us, than for the credulous inspector or fond visionary to examine the lines of his countenance, and to point at the marks which should plainly shew us that he ought to have been the very thing that he is. This is the very trick of gypsies and fortune-tellers. But who ever pointed to an utter stranger in the street, and said, I perceive by that man's countenance that he is one of the great luminaries of the world? Newton, or Bacon, or Shakespeare, would probably have passed along unheeded. Instances of a similar nature occur every day. Hence it plainly appears that, whatever may hereafter be known on the subject, we can scarcely, to the present time, be said to have overstepped the threshold: and yet nothing can be more certain than that there is a science of physiognomy, though, to make use of an illustration already cited, it has not to this day been extricated out of the block of marble in which it is hid. Human passions, feelings, and modes of thinking, leave their traces on the countenance; but we have not thus far left the dame's school in this affair, and are not quali-

fied to enter ourselves in the free-school for more liberal inquiries.

The writings of Lavater on the subject of physiognomy are couched in a sort of poetic prose, overflowing with incoherent and vague exclamations, and bearing small resemblance to a treatise in which the elements of science are to be developed. Their success, however, was extraordinary; and it was probably that success which prompted Gall first to turn his attention, from the indications of character that are to be found in the face of man, to the study of the head generally, as connected with the intellectual and moral qualities of the individual.

It was about four years before the commencement of the present century that Gall appears to have begun to deliver lectures on the structure and external appearances of the human head. He tells us that his attention was first called to the subject in the ninth year of his age (that is, in the year 1767), and that he spent thirty years in the private meditation of his system before he began to promulgate it. Be that as it will, its most striking characteristic is that of marking out the skull into compartments, in the same manner as a country delineated on a map is divided into districts, and assigning a different faculty or organ to each. In the earliest of these diagrams that has fallen under my observation, the human skull is divided into twenty-seven compartments.

I would say of craniology, as I have already said of physiognomy, that there is such a science attainable probably by man, but that we have yet made scarcely any progress in the acquiring it. As certain lines in the countenance are indicative of the dispositions of the man, so it is reasonable to believe that a certain structure of the head is in correspondence with the faculties and propensities of the individual.

Thus far we may probably advance without violating a due degree of caution. But there is a wide distance between this general statement and the conduct of the man who at once splits the human head into twenty-seven compartments.

The exterior appearance of the skull is affirmed to correspond with the structure of the brain beneath: and nothing can be more analogous to what the deepest thinkers have already confessed

of man, than to suppose that there is one structure of the brain better adapted for intellectual purposes than another. There is, probably, one structure better adapted than another for calculation, for poetry, for courage, for cowardice, for presumption, for diffidence, for roughness, for tenderness, for self-control and the want of it—even as some have inherently a faculty adapted for music, or the contrary.

But it is not reasonable to believe that we think of calculation with one portion of the brain, and of poetry with another.

Nothing can be more certain respecting the thinking principle than its individuality. It has been said that the mind can entertain but one thought at one time; and certain it is, from the nature of attention, and from the association of ideas, that unity is one of the principal characteristics of mind. It is this which constitutes personal identity, an attribute that, however unsatisfactory may be the explanations which have been given respecting it, we all of us feel, and that lies at the foundation of all our voluntary actions, and all our morality.

But we must not lose sight of this, that in the action of the mind unity is an indispensable condition. Our thoughts can only hold their council and form their decrees in a very limited region. This is their retreat and strong hold; and the special use and function of the remoter parts of the brain we are unable to determine, so utterly obscure and undefined is our present knowledge of the great ligament which binds together the body and the thinking principle. Enough, however, results from what we do know, to demonstrate the incongruity and untenableness of a doctrine which should assign the indications of different functions, exercises, and propensities of the mind, to the exterior surface of the skull or the brain. This is quackery, and is to be classed with chiromancy, augury, astrology, and the rest of those schemes for discovering the future and unknown which the restlessness and anxiety of the human mind have invented, built upon arbitrary principles, blundered upon in the dark, and having no resemblance to the march of genuine science. I find in Sir Thomas Brown the following axioms of chiromancy: that "spots in the tops of the nails do signify things

past; in the middle, things present; and the bottom, events to come: that white specks presage our felicity; blue ones, our misfortunes: that those in the nails of the thumb are significations of honour; in the fore-finger, of riches: and so respectively in the rest."

Science, to be of a high and satisfactory character, ought to consist of a deduction of causes and effects, shewing us not merely that a thing is so, but why it is as it is, and cannot be otherwise. The rest is merely empirical: and though the narrowness of human wit may often drive us to this, yet it is essentially of a lower order and description. As it depends for its authority upon an example, or a number of examples, so examples of a contrary nature may continually come in to weaken its force or utterly to subvert it. And the affair is made still worse when we see, as in the case of craniology, that all the reasons that can be deduced (as here from the nature of mind) would persuade us to believe, that there can be no connexion between the supposed indications, and the things pretended to be indicated.

Craniology, or phrenology, proceeds exactly in the same train as chiromancy, or any of those pretended sciences which are built merely upon assumption or conjecture. The first delineations presented to the public, marked out, as I have said, the skull into compartments, in the same manner as a country delineated on a map is divided into districts. Geography is a real science: and accordingly, like other sciences, has been slow and gradual in its progress. At an early stage, travellers knew little more than the shores and islands of the Mediterranean. Afterwards they passed the straits of Hercules, and entered the Atlantic. At length the habitable world was distributed into three parts—Europe, Asia, and Africa. More recently, by many centuries, came the discovery of America. It is but the other day, comparatively, that we found the extensive island of New Holland, in the Southern Ocean. The ancient geographers placed an elephant, or some marine monster, in the vacant parts of their maps, to signify that of these parts they knew nothing. Not so Dr. Gall. Every part of his globe of the human skull, at least with small exceptions, is fully tenanted; and he with his single arm has conquered a world.

The majority of the judgments that have been divulged by the professors of this science, have had for their subjects the skulls of men whose habits and history have been already known. And yet, with this advantage, the errors and contradictions into which their authors have fallen are considerably numerous. Thus I find, in the account of the doctor's visit to the House of Correction, and the Hospital of Torgau, in July 1806, the following examples:—“Every person was desirous to know what Dr. Gall would say about T—, who was known in the house as a thief full of cunning, and who, having several times made his escape, wore an additional iron. It was surprising, that he saw in him far less of the organ of cunning than in many of the other prisoners. However, it was proved that examples, and conversation with other thieves in the house, had suggested to him the plan for his escape, and that the stupidity which he possesses was the cause of his being retaken.”

“We were much surprised to be told that M—, in whom Dr. Gall had not discovered the organ of representation, possessed extraordinary abilities in imitating the voice of animals; but we were convinced after inquiries, that his talent was not a natural one, but acquired by study. He related to us that, when he was a Prussian soldier, garrisoned at Berlin, he used to deceive the waiting-women, in the Foundling Hospital, by imitating the voice of exposed infants, and sometimes counterfeited the cry of a wild drake, when the officers were shooting ducks.”

“Of another Dr. Gall said, his head is a pattern of inconstancy and confinement, and there appears not the least mark of the organ of courage. This rogue had been able to gain a great authority among his fellow-convicts. How is this to be reconciled with the want of constancy which his want of organization plainly indicates? Dr. Gall answered, he gained his ascendancy, not by courage, but by cunning.”

It is well known, that in Thurtel, who was executed for one of the most cold-blooded and remorseless murders ever heard of, the phrenologists found the organ of benevolence uncommonly large.

In Spurzheim's delineations of the human head, I find six divisions of

organs marked out in the little hemisphere over the eye, indicating six different dispositions. Must there not be in this subtle distribution much of what is arbitrary and sciolistic?

It is to be regretted, that no person skilful in metaphysics, or the history of the human mind, has taken a share in this investigation. Many errors and much absurdity would have been removed from the statements of these theorists, if a proper division had been made between those attributes and propensities which by possibility a human creature may bring into the world with him, and those which, being the pure growth of the arbitrary institutions of society, must be indebted to those institutions for their origin. I have endeavoured in a former essay to explain this distinction, and to shew how, though a human being cannot be born with an express propensity towards any one of the infinite pursuits and occupations which may be found in civilized society, yet that he may be fitted, by his external and internal structure, to excel in some one of those pursuits rather than another. But all this is overlooked by the phrenologists. They remark the various habits and dispositions, the virtues and the vices, that display themselves in society as now constituted, and at once, and without consideration, trace them to the structure that we bring into the world with us.

Certainly many of Gall's organs are a libel upon our common nature. And though a scrupulous and exact philosopher will, perhaps, confess that he has little distinct knowledge as to the design with which “the earth and all that is therein” were made, yet he finds in it so much of beauty and beneficent tendency, as will make him extremely reluctant to believe that some men are born with a decided propensity to rob, and others to murder. Nor can any thing be more ludicrous than this author's distinction of the different organs of memory—of things, of places, of names, of language, and of numbers: organs which must be conceived to be given in the first instance long before names, or language, or numbers, had an existence. The followers of Gall have in a few instances corrected this: but what their denominations have gained in avoiding the grossest absurdities of their master, they have certainly lost in explicitness and perspicuity.

There is a distinction not unworthy to be attended to, that is here to be made between Lavater's system of physiognomy, and Gall's of craniology, which is much in favour of the former. The lines and characteristic expressions of the face, which may so frequently be observed, are for the most part the creatures of the mind. This is in the first place a mode of observation more agreeable to the pride and conscious elevation of man, and is in the next place more suitable to morality, and the vindication of all that is most admirable in the system of the universe. It is just that what is most frequently passing in the mind, and is entertained there with the greatest favour, should leave its traces upon the countenance. It is thus that the high and exalted philosopher, the poet, and the man of benevolence and humanity, are sometimes seen to be such by the bystander and the stranger; while the malevolent, the trickish, and the grossly sensual, give notice of what they are by the cast of their features, and put their fellow-creatures upon their guard, that they may not be made the prey of these vices.

But the march of craniology or phrenology, by whatever name it is called, is directly the reverse of this. It assigns to us organs, as far as the thing is explained by the professors either to the public or to their own minds, which are entailed upon us from our birth, and which are altogether independent, or nearly so, of any discipline or volition that can be exercised by or upon the individual who drags their intolerable chain. Thus I am told of one individual that he wants the organ of colour; and all the culture in the world can never supply that defect, and enable him to see colour at all, or to see it as it is seen by the rest of mankind. Another wants the organ of benevolence; and his case is equally hopeless. I shrink from considering the condition of the wretch, to whom nature has supplied the organs of theft and murder in full and ample proportions. The case is like that of astrology—

"Their stars are more in fault than they,"

with this aggravation, that our stars, so far as the faculty of prediction had been supposed to be attained, swayed in few things; but craniology climbs at once to universal empire; and in her map, as I have said, there are no vacant places

—no unexplored regions and happy wide-extended deserts.

It is all a system of fatalism. Independently of ourselves, and far beyond our control, we are reserved for good or for evil by the predestinating spirit that reigns over all things. Unhappy is the individual who enters himself in this school. He has no consolation, except the gratified wish to know distressing truths, unless we add to this, the pride of science that he has by his own skill and application purchased for himself the discernment which places him in so painful a pre-eminence. The great triumph of man is in the power of education, to improve his intellect, to sharpen his perceptions, and to regulate and modify his moral qualities. But craniology reduces this to almost nothing, and exhibits us for the most part as the helpless victims of a blind and remorseless destiny.

In the meantime it is happy for us, that, as this system is perhaps the most rigorous and degrading that ever was devised, so it is in almost all instances founded upon arbitrary assumptions and confident assertion, totally in opposition to the true spirit of patient and laborious investigation and sound philosophy.

It is in reality very little that we know of the genuine characters of men. Every human creature is a mystery to his fellow. Every human character is made up of incongruities. Of nearly all the great personages in history, it is difficult to say what was decidedly the motive in which their actions and systems of conduct originated. We study what they did, and what they said; but in vain. We never arrive at a full and demonstrative conclusion. In reality no man can be said to know himself. "The heart of man is deceitful above all things."

But these dogmatists overlook all those difficulties which would persuade a wise man to suspend his judgment. They look only at the external character of the act by which a man honours or disgraces himself. They decide presumptuously, and in a lump. This man is a murderer, a hero, a coward, the slave of avarice, or the votary of philanthropy; and then surveying the outside of his head, undertake to find in him the configuration that should indicate these dispositions, and must be found in all persons of a similar charac-

ter, or rather whose acts bear the same outward form, and seem analogous to his. Till we have discovered the clue that should enable us to unravel the labyrinth of the human mind, it is with small hopes of success that we should expect to settle the external indications, and decide that this sort of form and appearance, and that class of character, will always be found together.

But it is not to be wondered at, that these disorderly fragments of a shapeless science should become the special favourites of the idle and the arrogant. Every man (and every woman), however destitute of real instruction, and unfitted for the investigation of the deep or the sublime mysteries of our nature, can use his eyes and his hands. The whole boundless congregation of mankind, with its everlasting varieties, is thus at once subjected to the sentence of every pretender:—

"And fools rush in where angels fear to tread."

Nothing is more delightful to the headlong and presumptuous, than thus to sit in judgment on their betters, and pronounce *ex cathedra* on those "whose shoe-latchet they are not worthy to unloose." I remember, after Lord George Gordon's riots, eleven persons accused were set down in one indictment for their lives, and given in charge to one jury. But this is a mere shadow, a nothing, compared with the wholesale and indiscriminating judgment of the vulgar phrenologist.

NOTE ON HYDROPHOBIA.

To the Editor of the London Medical Gazette.

SIR,

I AVAILED myself of the opportunity afforded by the Gazette of informing the medical profession that Sir Robert Ker Porter had entrusted some of the guaco to my care—a South American plant, which had been vaunted as a preventive against, and a cure for hydrophobia, and that any gentleman might obtain some of the medicine by applying to me, in order that its effects might be tried. The annexed history of a case of this disease, which has been drawn up by Mr. Gosna, is the first which has since occurred.

In vol. vi. p. 507, of the Gazette, is a short notice of a paper which was read at the College of Physicians upon this subject, in which I gave an account of some experiments I had made with the guaco in two cases of rabies in dogs, and of its exhibition in one case of hydrophobia in the human subject; the result of which was such as to make me very desirous of again trying it, as it appeared to exert a powerful influence upon the disease in the dog, notwithstanding the probable diminution of the efficacy of the medicine by its having been some time in this country.

Since that time I have made trial of the medicine in several other diseases, in which it has also been said to do good. In some of these I have given the expressed juice, (mixed with a small quantity of spirit, to enable it to bear the long voyage), and in others a strong decoction of the dried leaves, and in some cases, again, the two forms have been united, and I have also employed the medicine as an external application; but I regret to say, that in none of these cases did I myself witness the least amendment from the medicine; and the only instances in which it has done any good, were two cases of chronic rheumatism, under my brother, Dr. F. Hawkins's care, at the Middlesex Hospital, in which the patients thought themselves more relieved by this medicine than they had been by other plans of treatment. In other cases of rheumatism, however, it entirely failed in procuring any relief; and as it was tried in many different diseases, without the least service, it seems to me unnecessary to enter into details of the cases themselves. The decoction alone seemed to produce no perceptible effect, but the juice, in doses of half an ounce three times a-day, or the decoction, combined with three or four drachms of the juice, produced effects in almost all persons which required the cessation of the medicine. These effects were not altogether those of a narcotic, which I was led from former experiment to believe was the principal medicinal virtue of the plant; but the patients after a few days began to complain of violent headache, sickness, restlessness, and disturbance of the nervous system, with acceleration of the pulse—precisely such symptoms, in short, as are frequently produced

in persons with whom opium disagrees; and these always subsided as soon as the guaco was discontinued.

This being the case, I became still more sceptical of the efficiency of the guaco as a cure for hydrophobia, and was not surprised at the result of the present case, which was very favourable for the trial, as the precursory symptoms were very short and the disease was recognized at an early period, and there was no difficulty in persuading the poor boy to swallow the medicine through the whole course of the disease; and as no other medicine was given, (for the single purgative need scarcely be taken into account), there was nothing to obscure our judgment of the real effects of the medicine, which is the case in many published narratives, on account of the various remedies employed at the same time.

It will be seen, however, from the history, that not the smallest alleviation of the symptoms was the result of the employment of the medicine; but that, on the contrary, the progress of the disease was uninterrupted, and its termination even more rapid than is often the case. I do not attribute the slight calm which took place for a few hours to the guaco, as, in every case I have seen, the patient became more tranquil, and even slept for a considerable time in one or two cases, in consequence, no doubt, of the silence and quiet of the room during the darkness of the night, and the absence of all excitement from numerous visitors, the glare of light, the wind produced by opening and shutting the doors, and numerous circumstances of this kind, which invariably occasion a paroxysm of the disease.

It will be seen that a very large quantity of the medicine was exhibited—no less than forty-one and a half ounces by the mouth, besides several enemata, in less than twenty-four hours; and yet there was not one change that I think can fairly be said to have been produced by it; which is the more remarkable, as the small dose previously mentioned was attended with perceptibly bad effects in many persons when given for other diseases. At first, indeed, the pulse diminished in frequency, but it requires further trials to satisfy me that this did not arise from other causes, since the usual effect of the guaco is to accelerate the circulation. The bowels were sev-

eral times opened during the course of the disease, in consequence of the injections, which is not usually the case in hydrophobia; but no benefit resulted from this circumstance.

On the whole it appears to me, that although the medicine deserves trial in another case, since we know of no remedy for the disease, yet the chance of its doing good is very small indeed. It is possible, indeed, that the juice may have lost some of its qualities, or acquired new ones by fermentations, as Sir Robert Porter has conjectured, and that an extract, in which form it was partly exhibited last year, may preserve more of the properties of the plant. Sir Robert has promised to send some of the guaco in this form, which may perhaps arrive from the Caraccas before another case of hydrophobia occurs in London, or its neighbourhood; in the meantime I have still some more of the expressed juice and leaves at the service of the profession in this disease.

I am, Sir,

Your obedient servant,
CÆSAR HAWKINS.

81, Half-Moon Street,
May 7th, 1831.

Case of Hydrophobia, by Mr. Gosna.

Charles Smith, æt. 15, a boy of slight form and delicate habit, was admitted into the workhouse of St. Martin-in-the-Fields, on the 23d of April, labouring under symptoms of hydrophobia. He stated that on the 27th February last he was crossing the road in Hart-Street, Covent-Garden, at the time a number of persons were in pursuit of a Newfoundland dog, supposed to be in a rabid state. He attempted to stop the dog by catching at the collar, when the animal seized him by the wrist, and retained its hold until a bystander forced a pitchfork into its eye. The boy was immediately taken to the Middlesex Hospital, where the wounded parts were excised. He remained in perfect health until the 22d of April, at 3 P.M. when he was seized with cephalgia, nausea, and dyspnœa, which gradually increased. In the night he became thirsty and uncomfortable, and called to a person, who slept in the room, for some water: on receiving the vessel which contained it, he felt a sudden

and inexplicable repugnance, and with much difficulty swallowed a small quantity.

April 23d.—At the time of his admission three wounds were still visible on the wrist of the right hand, presenting an inflamed character, one being still in rather a suppurative condition. He complained of slight pain and a tingling sensation in the part, and was affected with the following symptoms:—Dyspnoea of a peculiar spasmodic character; pupils of the eyes dilated; tongue white; countenance intelligent, and expressive of anxiety; pulse 120, and small:—he was offered a glass of water without previous notice, which instantly produced violent agitation of the whole frame, and deep and convulsive inspiration.

Previous to his being subjected to any plan of treatment, he was taken to Mr. Brodie, who advised a trial of the *Mikania guaco*: accordingly, an application was made to Mr. Cæsar Hawkins, who kindly afforded his assistance on the occasion, and an ample supply of the expressed juice of the plant recently received from Sir R. Ker Porter from South America.

At 2 P.M. a table-spoonful was administered, and ordered to be repeated every hour. The moment he saw the medicine, the muscles of deglutition and of inspiration became convulsed; he turned aside his head, snatched the glass, held it for several seconds out of sight; then, with a desperate effort, swallowed its contents; after which he became tranquil, until some fresh cause of excitement renewed the paroxysm. He ate oranges and jelly without much difficulty.

3 P.M.—Two pills of calomel and colocyth were taken in addition to the *guaco*.

4 P.M.—An enema of 4 oz. of a strong decoction of the leaves was administered, and repeated every hour.

6 P.M.—Bowels copiously relieved; pulse 70; frequent sighing. At this period a new symptom appeared, for, whenever the door of the room was opened, admitting a current of air, he became much distressed, and anxiously desired it to be closed.

Had a boiled egg, and bread and butter, which he ate with good appetite, and with little difficulty.

8 P.M.—Paroxysms gradually increas-

ing in violence; pulse 96; a table-spoonful of the medicine to be repeated every quarter of an hour. The enema to be discontinued.

11 P.M.—Pulse 110; profuse perspiration; complains of a fulness and of a suffocating sensation in the throat, and a tenderness on pressure of the epigastrium. He knows, with remarkable exactitude, the time for taking his medicine, and watches with intense anxiety the man whose duty it is to give it him.

24th, 1 A.M.—Has slept half an hour, and appears relieved.

2 A.M.—Pulse 90; takes his medicine with less difficulty; vomited slightly.

6 A.M.—From 2 to this period he has been comparatively easy, pulse varying from 84 to 105; between 6 and 9 the paroxysms became again violent; more anxiety of countenance; pulse small, and fluctuating from 72 to 120. With these attacks he had frequent eructations of wind, from which he experienced much relief; complains of being hot, but the skin feels cold and moist. In attempting to wipe his face with a handkerchief, he could only accomplish it by convulsive efforts, and then threw it from him in great agitation.

12 A.M.—Has been slightly delirious. At this period he was visited by his mother: he appeared rejoiced to see her; shook hands, and suddenly thrust her from him, crying out, "Run, mother, run, or I shall bite you;" although he had never shewn the least disposition to injure or bite any person.

1 P.M.—Frequent expectoration of frothy mucus, its presence in the mouth causing a similar paroxysm to that produced by taking a fluid. Ate some roast beef with voracious appetite.

3 P.M.—Pulse 140; pupils dilated to their utmost extent; the mere breath from his nostrils, on passing over his chest, occasioned sickness and spasm.

At half-past 4 a decided change for the worse took place; he became delirious, and vomited a thin greenish fluid; called violently for tea, which he swallowed with a powerful effort, spilling a good deal over his chest, without experiencing the same inconvenience he had before felt, and also expressed much desire for the window to be opened, lest he should be suffocated.

About 7 he lost all control over his mind; talked incessantly; frequent convulsive twitchings of the limbs;

rapid and indistinct pulse; cold sweats; and laborious respiration; which continued until 9 o'clock, when he expired, 54 hours from the commencement of the constitutional symptoms of the disease. The quantity of the expressed juice taken was $4\frac{1}{2}$ ounces, besides several injections.

Sectio Cadaveris.—Vessels of the neck distended; salivary glands enlarged; par vagum natural; fauces deeply red-dened, as far as the cuticular lining of the œsophagus, where the redness suddenly ceased; trachea and bronchia slightly vascular.

Vessels of the lungs engorged with blood: the cells contained a small quantity of serum.

The blood found in the heart fluid.

The mucous membrane of the stomach highly vascular, beneath which were numerous spots of ecchymosis; the glands towards the pyloric orifice enlarged. The glandulæ circumvallatæ of the tongue much enlarged, but the salivary ducts on the side of the frenum not distended.

The brain throughout presented a uniform appearance of increased vascularity; so did the membranes; and under the arachnoid, which was slightly opaque, serum was deposited.

In the spinal canal was also found about an ounce of clear fluid, without any other marks of disease.

CONTINUED REMARKS

ON THE

USE OF CALAMINE AS A LOCAL APPLICATION IN CONFLUENT SMALL-POX.

To the Editor of the London Medical Gazette.

SIR,

THE subject of the present paper is a little girl in Kensington Workhouse, aged seven years. After struggling severely for two or three days, the eruption appeared. On the third day of the eruption, I first saw her; it was confluent on the face and many parts of the body; and where the eruption was most distinct, the pustules were very numerous. I punctured many of them with a lancet, and covered them with the

calamine. On the following day, April 26th, I found the pustules had filled again; the constitutional disturbance was very great. With a pair of scissors I imperfectly removed the cuticle from many of the pustules, and again applied the calamine.

April 27th.—The child is suffering severely from the disease. Wherever the cutis had been exposed, and covered with the calamine, a scab had formed; but in each pustule the cuticle that remained had attached itself to the cutis, forming pustules, of various size and form, filled with lymph; and most of them, where the cuticle, from the shape of the pock, had only been removed in the centre, formed a pustule, with healthy cutis in the middle, and went on to maturation: one large pustule, being entirely abraded of its cuticle, has healed, and left the skin perfectly sound.

28th.—From many of the pustules I again removed the epidermis, and covered them with the calamine, also directing that the powder should be constantly applied to the whole arm, leaving the pustules undisturbed; observing that those in the neighbourhood of the part where I had destroyed the cuticle had lost the efflorescence which surrounded their base.

29th.—Child tolerably well; all the pustules which were destroyed yesterday have put on the same appearance as described on the 27th; the efflorescence surrounding the base of each pustule much less distinct.

30th.—The efflorescence surrounding the base of each pustule on the arm on which the calamine was applied, has entirely disappeared.

May 1st.—The child going on well; many pustules and confluent patches were dressed yesterday by the mother of the child, with this different result—the scab has formed as usual, but the remaining cuticle, instead of forming irregular-shaped pustules, is shrivelled, but as yet is attached to the cutis.

3d.—No suppurative process is now going on on any part of the body, excepting on the hands and on the soles of the feet, where the pustules are allowed to proceed undisturbed: the child has slept soundly through the night; her appetite has returned.

4th.—The child convalescent, with craving appetite.

9th.—The child continues well; many

pustules still remaining on the soles of the feet and on the hands.

13th.—The child continues well; some pustules are still remaining.

From the above statement it should appear, first, if you carefully remove all the cuticle of the pustule in its early stage, and apply the calamine, you completely arrest its progress; and if any portion of the cuticle remains, that it attaches itself to the cutis, forming an irregular-shaped pustule, which goes on to maturation: does this argue the vitality of the epidermis?

2d, The effect which the calamine had in completely effacing the efflorescence from the base of each pustule, would lead me, on any other occasion, to apply it over the whole surface of the body, from the commencement of the disease, in the hope that, from its controlling the violence of the local actions, the disease would not only be mitigated, but that the expedient would also assist in preventing the destruction of the cutis. I am inclined to believe that nothing but the tediousness of the process would prevent our arresting the malady at the very commencement; for I cannot but consider this disease as strictly local in its character—as a disease, in fact, of the skin; that the constitutional disturbance presents throughout the phenomena of constitutional irritation; and that the aggravated disturbance which occurs about the ninth or tenth day, and which has been hitherto denominated the secondary fever, is merely an increase of constitutional suffering from a continuance of local irritation. What a striking instance of the effects of bodily pain (without any extensive suppurative process going forward) on the various functions of the body, has Mr. Travers given us in his last publication; and I believe I cannot do better than conclude by quoting, from the first section of his third chapter—that “pain, when amounting to a certain degree of intensity and duration, is of itself destructive.”

I am, Sir,

Your obedient servant,
HENRY GEORGE.
Surgeon.

Kensington, May 13th, 1881.

MEDICAL POLITY.

To the Editor of the London Medical Gazette.

SIR,

HAVING observed the following ordinance of the Cape government, published in the “South African Advertiser” of December 1830, regulating the practice of the medical profession in that colony, I have sent it to you for publication in your Gazette, if you should consider it of sufficient interest. It is worthy of imitation in our colonies generally, and some parts of it even in this country. It will raise the respectability of the profession abroad, and prevent uneducated persons from practising without undergoing some ordeal as a testimonial of their ability, and stimulate them to exertion in the acquirement of knowledge in the profession they are desirous of embracing. Several, with a mere superficial education, get medical charge of a merchant-ship bound to the colonies, and endeavour to establish themselves there as general practitioners, most of whom render themselves a disgrace to the profession of whom they class themselves as a member. This regulation is a most desirable object, and whatever outcry may be raised against it by those who fear that their abilities will not stand the test of an examination, will avail nothing. Young men now educating for the medical profession are obliged to attend courses of lectures, to devote themselves to arduous study, and undergo strict examinations previous to being considered qualified to practice, besides the expense: a long and severe study is absolutely requisite both to pass the examinations with credit, as well as during the practice of the profession, if he is desirous of rising, whether in the naval or military services, or in general practice. The class I before particularly alluded to are druggists’ assistants, and those who, having just served a term of apprenticeship with a general practitioner, procure (without any inquiry being made respecting their professional education) a situation as surgeon on board a merchant-ship proceeding to our colonies; they then leave the ship, and swarm there, establishing themselves as “surgeons, apothecaries, and accoucheurs.” Some remedy was therefore become absolutely requisite for

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preventing this great influx of pretenders to the medical profession into our colonies, and the Cape Colonial Government deserve the thanks of the profession for taking the lead in adopting efficient measures for the prevention of incompetent persons from practising, and which we ought to hope soon to see extended over the whole of our colonies.

I remain, sir, yours, &c.

G. B.

Ordinance of His Excellency the Governor in Council, for altering and amending the Laws and Regulations relating to Medical Practitioners and Apothecaries in this Colony.

WHEREAS it is expedient to alter and amend the laws and regulations relative to medical practitioners and apothecaries in this colony: be it therefore enacted by his Excellency the Governor in Council, that from and after the 1st day of January, 1831, the proclamation of the 26th September, 1823, shall be repealed; and the same is hereby repealed accordingly.

2. And be it further enacted, that it shall and may be lawful for the Governor, or other person administering the government of the colony for the time being, to appoint a Committee, consisting of a President and such number of members, being of the medical profession, as he shall think proper, together with a Secretary, under the style and description of "The Colonial Medical Committee," who shall superintend the civil medical concerns of this colony; and it shall be lawful for the Governor, or other person administering the government as aforesaid, to remove the said members, or any of them; and upon the removal, death, or resignation of the said members, or any of them, to appoint such other person or persons as he shall think fit.

3. And be it further enacted, that no person shall practise as physician, surgeon, accoucheur, surgeon apothecary, apothecary, chemist, or druggist, in this colony, without taking out a license to that effect from the Governor, or other person administering the government as aforesaid; and previously to obtaining such license, any person wishing to practise as aforesaid shall submit his diploma, or other certificate, of his being duly qualified to practise such

branch or branches of the medical profession as he shall profess to exercise, for the examination and approval of the said Committee: Provided always, that it shall be lawful for any medical officer of his Majesty's land or sea service, to exercise his profession without taking out such license as aforesaid.

4. And be it further enacted, that any person who has served as apprentice, for a period not less than four years, to any regularly licensed apothecary in this colony, may obtain a license to practise as an apothecary, on passing an examination before the said Committee, and to the satisfaction of the members thereof.

5. And be it further enacted, that any person who shall practise any of the aforesaid branches of the medical profession, without such license as aforesaid, shall, on conviction, be liable to a penalty of fifty pounds for each offence.

6. And be it further enacted, that any merchant, trader, or dealer, who shall import into this colony any drugs or medicines, whether the same be patent or not, and shall vend the same without their having been first submitted to the examination of the said Committee, and a certificate obtained from them of their being of good quality, shall incur and be liable to a penalty of fifty pounds for each offence.

7. And be it further enacted, that all apothecaries and venders of medicines shall label all vessels or packages containing mineral acids, preparations of arsenic, opium, and other powerful medicines, commonly denominated poisons, with the word "Poison," and keep the same in secure places under lock and key, and shall take care that they be not sold in dangerous doses or quantities, without a written permission from a magistrate, or prescription from a regular physician or surgeon; and if it shall appear that any apothecary or vender of medicines shall suffer such poisonous or dangerous medicines to be kept without due care, or shall sell, or keep for sale in his possession, any medicines or drugs of bad quality, he shall be liable, on conviction before any competent court, to a penalty not less than 5*l.* and not more than 50*l.* one-half of which shall go to the informer; and he shall further become liable to forfeiture of his license.

8. And be it further enacted, that all apothecaries, chemists, and druggists,

shall prepare their medicines according to the Pharmacopœia Londinensis, unless otherwise directed by the prescribing medical practitioner.

(Signed) &c.

ROYAL SOCIETY.

April 28, 1881.

Dr. Marshall Hall on the Capillary Circulation.

A PAPER was read on the anatomy and physiology of the minute and capillary vessels, by Dr. Marshall Hall: After some preliminary observations, this paper was divided into three parts: the first related to the systemic, the second to the pulmonic circulation, and the third to the causes of the motion of the blood through the minute and capillary vessels.

It is a singular fact, pointed out by M. Edwards, that the batrachian tribes die almost immediately if plunged into water raised to less than 120°. Dr. Hall, in investigating the causes and nature of this kind of death, observed that the beat of the heart continued after sensation and motion had ceased. It occurred to him to examine the state of the capillary circulation in the lung in these circumstances. It was found active: and thus an opportunity was afforded of examining its character at leisure.

In the first part of the paper the author corrects several errors in the descriptions of the systemic circulation. The arteries in the web of the frog do not anastomose, as has been stated; neither do they terminate immediately in veins. They uniformly pass into an intermediate order of vessels, to which the author restricts the term capillary; designating the other vessels of the class by the terms nutrient, secretory, exhalent, &c. The mode of the formation of the capillaries is particularly insisted on. The last branches of the artery divide into two or more, of which each is of equal size with itself; at this point the character of the vessel changes and the circulation is of less velocity;—they, in a word, become capillary.

The arteries and veins, taken in their extreme branches and roots, are of a conical form; the capillaries preserve a uniform diameter, and may be called

cylindrical. The arteries terminate, in the web of the frog's foot, in these capillaries uniformly, and do not anastomose. The capillaries unite and redivide continually. The veins issue from the capillaries, and anastomose occasionally.

The peculiarities of the minute and capillary vessels and circulation in the tail and fin of the fish, in the web of the frog, and in the mesentery, were described, illustrated by drawings, and shewn to be replete with design. On these points we must refer, however, to the paper itself.

The pulmonic circulation is next described. The lung of the salamander being purely vesicular, was chosen, as affording the simplest form, and the type of this part of the circulation. In the minute vessels the most beautiful order is observed. A large artery passes along one side of the lung; and a large vein returns on the opposite side. These branch off, and their branches again divide into smaller branches, all of which are placed in most symmetrical and parallel arrangements; so that the vein is most aptly placed so as to receive the capillaries given off by the arteries.

The arteries in no case anastomose, nor does even the largest issue in the vein; but each branch terminates rather abruptly, by giving origin at its point and sides to innumerable capillaries, which, after passing over their appointed space, converge, and form a vein of similar form to that of the artery. In all this course the flow of the blood is readily traced, and presents the most splendid scene under the microscope.

The lung of the other batrachia is cellular as well as vesicular. The minute vessels dip down along vertical meshes, and are then lost to view. The anatomy is, however, distinctly traceable in the dried preparation. The capillaries of the pulmonic circulation anastomose infinitely more frequently than those of the most complicated systemic circulation. The design is obviously to spread the blood over the greatest possible extent of surface.

The third part of this paper treats of the causes and modifications of the flow of blood through the capillaries. The causes are plainly the action of the heart, the contraction of the arteries, and the influence of inspiration upon the venous circulation, so well shewn in the experiments of Dr. Barry. The

peculiarity of the capillary circulation is slowness, compared with the arterial. The flow of the blood through the capillaries is made slower still, oscillatory, or even retrograde, by a variety of causes. It is quite obvious that the capillaries have no power over the flow of blood in themselves. These points are fully discussed in the paper, to which we must refer for further information on the subject.

We have had an opportunity of seeing the capillary circulation in the lung of the toad through Dr. Hall's microscope, and can bear testimony to the accuracy of the description he has given of this very beautiful and interesting phenomenon.

ROYAL INSTITUTION,

Friday, May 18, 1881.

SIR GEORGE DUCKETT, BART. VICE-PRES.
IN THE CHAIR.

Mr. Brockedon on Hannibal's Passage of the Alps.

It is well known to the literary world that many differences of opinion have existed, and do still exist, among the most learned geographers and classical scholars, as to the precise route pursued by Hannibal in his celebrated passage of the Alps, arising from the difficulties of reconciling the time occupied in the journey, and the circumstances related by several historians, with the natural landmarks existing in our time. Mr. Brockedon commenced his critical dissertation on preceding speculations on this subject by reading some very copious extracts from Polybius, and then attempted to clear the way for his own hypothesis, by shewing the irreconcilability of the plans laid down by previous writers (of whom he spoke in no very measured or laudatory terms), with the circumstances recorded by contemporary historians. We cannot pretend to follow Mr. B. in his rather prolix lucubrations, which seemed to us rather fitted for the study than the lecture-room, and this the more especially, as the passage of the little St. Bernard, for which he contends, does not appear to us to be more in accordance with history than those it is intended to supersede; for, as the lecturer himself confessed, the plains of Italy are not

distinguishable therefrom, which historians state they were from the heights which Hannibal passed over.

In the Library we noticed numerous Burmese and other oriental musical instruments, from the museum of the Asiatic Society; and also two volumes of that most splendid work of Dupaix and Aglio on the Antiquities of Mexico, which has been collected, compiled, and published, under the munificent patronage of Lord Kingsbury, at an expense of upwards, as we are told, of 32,000*l*.

MEDICO-BOTANICAL SOCIETY,

Tuesday, 10th May, 1881.

DR. SIGMOND, the secretary, read this evening a paper, communicated by a member whose name escaped us, containing an analysis of the Mudar plant (*Calotropis mudarj*), but the nature of which forbids an abridged account. Subsequently to this, the Professor of Chemistry continued the topic commenced at the last meeting, by giving a lecture, illustrated by numerous experiments, on the chemical history of Veratria, as deduced from colchicum and hellebore, and shewing all the various stages of the process. At the close of the lecture, Dr. Sigmond offered some remarks on the action of *Secale Cornutum* in restraining and arresting hæmorrhage, upon which an animated discussion arose, principally sustained by Drs. Sigmond, Whiting, and Negri, the latter of whom gave a very interesting detail of numerous experiments on this subject, which have been lately made in Italy, by Dr. Spinardi, in whose hands, in doses of from 6 to 10 grains every two hours, or, in urgent cases, every hour, half hour, or even every ten minutes, it had been found of singular efficacy, not only in mænorrhagia, but also in a variety of other sanguineous fluxes, as epistaxis, &c. &c.; indeed, in almost every hæmorrhage in which inordinate action of the arterial system did not indicate bloodletting. It had also been found very serviceable in cases of leucorrhœa.

At the usual hour the society adjourned to Tuesday, 24th May, when a paper will be read, communicated by Mr. Rootsey, "On the Medicinal Plants mentioned by Shakspeare."

MEDICAL GAZETTE.

Saturday, May 21, 1831.

"Licet omnibus, licet etiam mihi, dignitatem *Artis Medicæ* tueri; potestas modo venendi in publicum sit, dicendi periculum non recuso."—CICERO.

FORGERY.

A TRICK of the most despicable kind was last week played off on the public—and, we regret to say, through the medium of this journal—in the shape of a letter, which was forged in the name of Dr. O'Shaughnessy. At present we shall not allude to the knave by whom this fraud was practised, farther than to state, that, by an extraordinary and unlooked-for coincidence, *he has been detected*. The moral evidence against him, now in our possession, is perfectly convincing; and difficult as it is in such a case to procure the proofs necessary to secure a *legal* conviction, yet there is even now but one short link in the chain deficient; and if we succeed (which we hope to do) in obtaining this, we shall be enabled to make such a disclosure as will leave far behind the most unprincipled and infamous of the practices hitherto adopted by our opponents.

To the subject of the forgery, then, we shall recur;—for the present we shall content ourselves with the insertion of Dr. O'Shaughnessy's disclaimer, and a few words which it naturally suggests.

To the Editor of the London Medical Gazette.

13, Manor-Place, Walworth,
14th May, 1831.

SIR,—My attention has just been directed to a letter, published under my signature, in this day's Medical Gazette. Permit me to assure your readers that that letter is a wanton forgery, and to entreat of such of them as have not seen through its fictitious nature, to dismiss from their minds the contempt it could not fail to engender against me.

I have also been shewn, in the same No. of your journal, some remarks by

an anonymous correspondent, in which he has grossly distorted the substance of a few words I ventured to address to a recent meeting, in explanation of the motives which induced me to join in the proposed scheme for the formation of a New Medical Institution. I shall not trespass on your space with the repetition of my brief observations on that occasion; particularly since they are accurately reported elsewhere (*Lancet*, No. 402, p. 213). It may there be seen that I did no more than describe the difficulties which every graduate in medicine, of the Edinburgh University, experiences in his attempts to practise his profession in this city.

On the editorial comments you were pleased to prefix to the forged letter, I shall offer no remark. Could I believe that you were aware of the falsity of that article, I should not stoop to notice the transaction in your columns, and I should seek my reparation from the laws of the realm: but on the supposition that you were deceived, I feel that, if you are possessed of any manly or honourable sentiments, my wisest part is to leave entirely to your own consideration the course you should adopt towards an individual who has never injured you, and whom you have insultingly exposed to the ridicule of his professional brethren.

I have the honour to be, sir,

Your obedient servant,

W. B. O'SHAUGHNESSY, M.D.

On the receipt of the preceding letter, we immediately wrote to Dr. O'Shaughnessy, assuring that gentleman of the very sincere regret we felt at the occurrence to which he alluded; and these sentiments we think it due to him, and to ourselves, publicly to express. Dr. O'Shaughnessy would seem to imply that the fictitious nature of the document might have been "seen through;" but to this we reply, that it was written precisely in the style which distinguishes most of the correspondents of the *Lancet*—violent, vindictive, and vulgar—and that as the Doctor has been in the habit of contributing to that work, it never for a moment occurred to us that the letter was not genuine. This may not

be flattering to Dr. O'Shaughnessy, and the result has shewn that it was doing him an injustice—but then it is the natural result of the position in which he has placed himself in the public eye; for, as society is constituted, men will still be judged of by those with whom they voluntarily suffer their names to be connected.

Dr. O'Shaughnessy speaks of his being "young and inexperienced;" let him receive counsel even from those who are politically opposed to his views. If he look around him, and perceive that the persons in connexion with whom his name has recently appeared before the public are those distinguished for science, eminent in practice, and holding prominent places in the community, then, by all means, let him pursue his course, and risk his professional venture in the same bark with them. But if the contrary of all this should be the case, then let him decide either to withdraw himself from such connexion betimes, or make up his mind to take the consequences: what these have been to all others, they will assuredly be to him.

Dr. O'Shaughnessy complains that we have held him up to ridicule, and that an anonymous correspondent has "grossly distorted" what he said with regard to his motives for joining what they are pleased to call the "New College of Medicine." To the former charge we plead guilty. We have thought, and still think, ridicule the fittest weapon against an undertaking so preposterous as that alluded to. With regard to the second point, we must say, that with one exception—namely, the statement of our correspondent that he "*understood*" Dr. O'Shaughnessy to say he was not an university graduate—we cannot see any such distortion; and even this probably arose from an allusion to the circumstance of his not having a degree from an *English* university. But to set the matter at rest, as to what Dr. O'Shaugh-

nessy said of himself and his motives, we shall quote the account to which he refers us as correct.

"I am a graduate of the University of Edinburgh. Circumstances induced me to remove from that capital to London, and the moment I arrive here, I find myself totally unable to practise my profession; I attempt to practise as a physician; I am met by the sneers and reflections of my fellow practitioners, that 'I am not a licentiate of the London college.' I am not a surgeon, therefore I do not practise in that department of the profession. If I attempt to practise as an apothecary, I have the melancholy example of my friend Mr. Ryan before my eyes."

Having done thus much for Dr. O'Shaughnessy, we must now, in justice to ourselves, give the corresponding passage from our own original report—published the preceding week—that our readers may judge whether misrepresentation was our object.

"He is a graduate of Edinburgh, (he informs us,) compelled by circumstances to come to settle in London; as things are at present constituted here, however, he has found that his degree stands him in but little stead: he cannot practise as a physician, for he thus becomes liable to the penalty; he is *not* a surgeon; and if he practise as an apothecary, he has the fate of his friend Ryan before his eyes."

FACTS RELATING TO CHOLERA.

PROFESSOR LICHTENSTEIN, of St. Petersburg, has just published an official report, under the title of "Details and Observations on the Cholera which has prevailed in the government of Orenburg, from autumn 1829 to autumn 1830." The materials were collected under the auspices of the supreme medical board of Russia; of course they are as authentic as could be procured, and certainly are of much importance. We are enabled, through the medium of a learned contemporary*, to lay before

* Foreign Quarterly Review, No. XIV.

our readers some of the more prominent particulars.

The disease first shewed itself in Orenburg the 26th August, 1829, and in the village of Massina, February 6, 1830. The number of sufferers amounted to 3590, of whom 2725 recovered, 865 perished. Considering the apprehensions excited as to the results, the treatment adopted must be esteemed very effectual. From the combination of individual observations and experience, the medical board has arrived at the following conclusions: which, with reference to the strongly disputed point as to the contagiousness of the distemper, as well as a general insight into its nature, and the remedies applied, will be found of the highest importance.

1. That the disease prevailing at Orenburg within the specified period, was actually the cholera.

2. The important question, whether the disease originated in Orenburg itself, or was introduced from its boundaries on the Kirgish side, in spite of the most rigid investigation on the part of the local medical boards, is yet undecided.

3. The other question, however, which does not yield to it in importance, viz. whether the disease be contagious, is now more satisfactorily settled than the first. From the first observations on it, independent of the description of the staff-physician of Sokolon, (all of which appear at length in the work) we might be induced to think that the cholera did not communicate itself to the patient by immediate contact. However, in the progress of the malady, the local boards, as well as the physicians, have been fully convinced that the cholera does in fact disseminate itself from one man to another, and by this means travels from place to place.

4. From all observations collected, we must come to the conclusion that the contagiousness of the cholera, though in some instances incontestible, is nevertheless not so apparent as that of the plague and yellow fever. The infectious power is not so visible in its operation on all who come in contact with those afflicted with it. This is most conspicuous in the primary stage of the disorder.

5. All this tends to confirm the decision of the medical board, that the cholera, in common with many other epidemical disorders, becomes in process of

time contagious, and may then extend itself by communication.

6. The police and quarantine regulations adopted in the Orenburg government, were doubtless of great benefit; nevertheless, it occurred, as related by the staff-physician, that the inhabitants, after the enforcement of a fourteen days' quarantine, were visited by this disease. Allowing that this happened without any recent intercourse with persons and places affected, we must concede that the term of fourteen days was scarcely adequate for the full development of the latent malady in the subject. It has resulted from observation that the contagiousness really exists.

7. Confiding in these remarks, and not in any theories that may have obtained on the subject, we must allow that the progress of the disease at Orenburg was of the most rapid nature. In the course of twelve to eighteen hours from its commencement, the disease has been known to terminate fatally.

8. The cholera, partaking of the character of the plague, can recur and affect the same persons again.

9. Change of weather and climate has apparently no influence on the progress of the cholera. The cold, in contradiction to early observations, has not the least power over it. It was in December and January that it attained its utmost malignity, and extended itself in some places at a temperature of 27° to 30° Reaumur.

10. The faculty of Orenburg adopted no other police or precautionary measures against the cholera than those prescribed in the directions of the medical board. They consist in an entire separation of the patient from the sound members of the community, and in a faithful application of all external influences which may benefit him.

11. The protecting power of camphor has, it appears, on this occasion proved ineffectual. In none of the observations collected, is it mentioned.

12. In the treatment of the cholera, the necessity of the immediate application of medical means has been abundantly established. The lapse of a few hours, without recourse to the assistance of art, will render the disease very dangerous—often incurable. The *medicine expectative* cannot be made available here. The strongest remedies must be applied without the least tampering or intermission.

13. From amongst the multitude of remedies we may select the chief, viz. bleeding, calomel, opium, warm covering, and friction.

14. Oil of cajeput, volatile alkali, and muriatic acid, fail of their expected operation here.

15. The mortality of this epidemic was not so extensive as it is described to be in its ravages in the south of Asia. A census of the mortality was taken in the Orenburg government, where the people were in the habit of concealing the disease in its incipient state, and where little attention is paid to cleanliness and salubrity of dwellings; and if we compare the details in the lists of the dead, we shall find some districts which have suffered more severely than others.

ZOOLOGICAL SOCIETY.

THE most sanguine wishes of the founders of this establishment must be more than realized; its rate of progress and advancement in prosperity are rapid beyond the most flattering anticipation. At the annual meeting, held at the usual time (the beginning of the present month), in the theatre of the Royal Institution, a most gratifying report was read, from which we select the few following brief but volume-speaking particulars:—For the year 1827, the receipts were but 4079l.; for the last year, 1830, they came to 15,806l.; and all expenses paid, there remains in the hands of the treasurer a balance in favour of the Society amounting to 767l. 6s. 10d. The number of visitors to the Gardens, during the last year, was 224,745, and to the Museum 14,323. The number of members, too, or *Fellows*, (including many ladies,) belonging to the Society, has increased very considerably within the year: they reckon 1814 at present. And, in conclusion, we may add another promising circumstance: Lord Stanley has been elected the new President, to succeed the Marquis of Lansdown, resigned.

DR. RAMADGE.

At a special meeting of the members of the London Medical Society, held on Monday last, Dr. Ramadge was expelled, and his name erased from the list of members.

MEATH HOSPITAL, AND COUNTY OF DUBLIN INFIRMARY.

Adjudication of Prizes.

ON Monday, the 2d of May, 1831, the medical prizes which were proposed to be competed for at the commencement of the session, were publicly conferred in the theatre of the hospital.

In this Institution, the German mode of clinical instruction was first introduced, several years ago, by Dr. Graves, and has since been acted on with considerable success. The peculiarity of the mode consists in the entrusting to each student a certain number of cases, of which he has the charge: the history and daily reports of these cases are to be taken by him, and the diagnosis, prognosis, and mode of treatment, are to emanate from himself, subject always to the corrections and emendations of the physician, who thus, in his daily visit to the patients, acts in a consulting capacity. Every new case, or every change in the symptoms of a case, calls for a new examination and discussion between the physician and pupil; and the result is highly beneficial to all parties concerned, but especially to the pupil, who is in this way taught to think for himself, and to compare disease, as it is really met with, with the description given in books. His attention is directed to the acquisition of facts, and he learns that accuracy of examination which is so essential a qualification of the physician. The result of the competition may well be appealed to as a proof of the excellence of this mode of instruction.

Four prizes were proposed to be competed for, under the express condition that the candidates should all have undertaken the care of patients in the hospital for at least three consecutive months. The circumstances which were to guide the distribution of prizes were the following:—

1. The writing of the best reports, with clinical and general observations on the cases taken.

2. The length of time that the candidate had practised in the wards.

3. His diligence and general good conduct.

On the day above-mentioned the physicians of the hospital assembled the pupils in the theatre, at 9 A.M., when Dr. Graves commenced by observing, that, of the cases sent in to him, those by Mr. John Hamilton were the best; and that, on referring to his colleague, Dr. Stokes, he had learned from him that he had also found Mr. Hamilton's cases to be the best of those taken under his inspection. On these grounds, and also on the circumstance of Mr. Hamilton having practised diligently for six months, the first prize was awarded to him. The second was given to Mr. John Cameron, and the third to Mr. Thomas Fitzpatrick; both of these gentlemen having practised during the whole season. The fourth was awarded to Mr. William D. Bernard, who had practised but the four last months of the season.

Dr. Graves then gave a short analysis of the cases of Messrs. Hamilton and Cameron. Mr. Hamilton's cases were the following: *Aneurism of the Abdominal Aorta—Hepatitis of the upper Lobe of the right Lung—Bronchitis, with Dropsy—Several Cases of Peritonitis—Sciatica treated by Acupuncture—Urticaria—Lupus—Dropsy—Jaundice—Hemiplegia with Iritis—Epilepsy.*

Those of Mr. Cameron were, *several examples of Fever—Peritonitis—Disease of the Mitral Valves—Tubercular Phthisis—Pneumonia—Acute Bronchitis—Abscess of the Brain—Acute Dropsy—Pericarditis—Pleurodyne—Delirium Tremens—Arthritis.*

On these reports Dr. Graves made some highly complimentary observations, specifying particularly Mr. Hamilton's cases of abdominal aneurism, sciatica, and disease of the brain; and Mr. Cameron's, of disease of the heart, phthisis, and pneumonia. He then stated that he and his colleague had been so much gratified with the reports and observations of a fifth candidate, Mr. Henry Hodges, that they had determined on giving to that gentleman an extra prize, of half the value; and concluded by stating that he and his col-

league considered many of the cases and observations, both of the successful and unsuccessful candidates, highly worthy of publication.

Dr. Stokes then addressed the class, and proceeded to comment on the cases submitted to him by the successful candidates. Mr. Hamilton's were the following: *Pleurisy, with Effusion—Double Pleuropneumony—Asthma—Diarrhoea after Ague—Dysentery—Acute Rheumatism—Peritonitis—Ague, and Typhus Fever.* The first of these cases was peculiarly interesting, from the fact that the disease occurred in a person who was maniacal, but in whom the intellects were restored during the disease of the chest, and became again disordered on his convalescence.

Mr. Cameron's cases were, *Gastro-Catarrhal Fever—Phthisis—Meningitis—Inflammation of the Absorbents—Diphtheritis.* On these Dr. Stokes made several observations, and proceeded to notice the report of Mr. Fitzpatrick, which related solely to fever, and which presented a most accurate description of a form of fever lately epidemic in Dublin, in which both the gastro-intestinal and bronchial mucous membranes were severely affected. Mr. Bernard's cases were examples of *Pityriasis—Nervous Palpitation—Abdominal Tumor—a most remarkable Case in which substances resembling Hydatids were expectorated—Dropsy, and Hemiplegia with contraction.* Dr. Stokes pronounced an eulogium on the observations of Mr. Bernard as to the case of expectoration of hydatids, which he stated would not have disgraced the most experienced pathologist.

The prizes awarded were then the following:—

To Mr. Thomas Johnston (clinical clerk), for his answering at the November examination for the place of clinical clerk, then obtained by Mr. Kane, who has since been appointed Professor of Chemistry at the Apothecaries' Hall.

First clinical prize, Mr. Hamilton.

Second ditto . . . Mr. Cameron.

Third ditto . . . Mr. Fitzpatrick.

Fourth ditto . . . Mr. Bernard.

Fifth (extra) . . . Mr. Hodges.

ON WOUNDS OF THE THROAT.

BY BARON LARREY.

CASE I.—Complete Division of the External Carotid—Recovery.

M. ARRIGHI (now Duke of Padua, and then aide-de-camp to General Berthier) received a musket-ball in his neck, at the siege of Acre, by which the external carotid artery was cut across, near to the place where it is given off from the internal, and as it enters the parotid gland. The gush of blood from both apertures of the wound attracted the attention of the artillerymen, and one of them instantly pushed a finger into each opening, and thus arrested the flow of blood. Baron Larrey was immediately called, amidst a shower of shot and shells. He applied pressure and maintained it carefully for some days, by which means, and without any ligature, life was preserved, and all hæmorrhage prevented.

CASE II.—Partial Division of the External Carotid—Recovery.

After the battle of Waterloo, the Baron had an opportunity of seeing a young English soldier who had had the left external carotid artery *partially* opened. The hæmorrhage was alarming; but the English surgeon cut down on the aperture, and tied the artery both below and above the wound. The patient entirely recovered.

CASE III.—Wound of the External Carotid and Thyroid Arteries—Recovery.

Henry Gabon, of the Swiss Guard, was brought into the Hôpital de la Garde, on the 21st of November, 1828, immediately after receiving a sabre-wound, while fighting a duel, in the upper part and right side of the neck. When the Baron arrived the man was nearly dead from hæmorrhage and suffocation. The wound was laid bare, while an assistant made pressure on the line of the artery, and then the Baron enlarged the orifice, and discovered that the superior thyroid artery was wounded, as also the external carotid itself. A cellular pouch had formed behind the thyroid gland, (which was goitrous,) filled with clotted blood, and which was pressing on the trachea. The removal of these clots was followed

by a jet of arterial blood. The Baron was unable to seize the vessels from which the blood issued, and therefore laid bare the trunk of the common carotid, and passed a ligature round it. He was not a little surprised to find this artery no larger than the radial artery at the wrist. This was attributable to the great loss of blood. The great source of hæmorrhage was thus cut off; but some vessel still continued to supply blood at the upper part of the wound. This vessel was fortunately seized by the forceps and secured. The wound was then cleaned and dressed. The breathing continued difficult, and the lips deadly pale. For two or three days it was doubtful whether this man would rally; but eventually he recovered.

CASE IV.—Wound of Pharynx—Recovery.

A grenadier of the army of Egypt was wounded by a bayonet, the broken point of which remained, for six weeks, deep in the left side of the pharynx, behind the arch of the palate. The man had entirely lost his voice. The Baron, with great difficulty, seized the foreign body and extracted it. The voice was instantly restored. The iron had pressed on the laryngeal branch of the par vagum.

CASE V.—Wound of Larynx—Tracheotomy—Death.

A subaltern officer of the Guards was brought into the hospital on the 7th of June, 1824, presenting a wound in the neck, on the right of the larynx, so small as to be scarcely perceptible. There was great ecchymosis and tumefaction of the whole anterior region of the neck, with deep-seated pain in the chest. Voice and speech were gone—the respiration exceedingly difficult, as well as deglutition. He informed Baron Larrey, by writing, that this wound was made by a small sword. Venesection was repeatedly employed, together with cupping and leechings, which gave some relief. On the sixth day, however, he was menaced with suffocation, and his face was blue and bloated. The Baron found him apparently in the agonies of death. In this crisis he determined on tracheotomy. He made an incision through the integuments of some length, and then perforated the space between the thyroid

and cricoid cartilages. An immense explosion of air was the immediate consequence, together with the expulsion of several clots of blood. Respiration succeeded, and considerable relief was the result. A paroxysm of suffocation, however, soon after occurred, owing to the obstruction of the orifice in the air-passage, and a tube was quickly inserted. Relief was again obtained; but thirst was intolerable, and the unhappy patient was unable to swallow. In this dilemma, a tube was, with great difficulty, passed into the stomach, and fluids introduced into that organ. The thirst was moderated; but he could not bear the presence of the hollow bougie, and tore it out himself. He lingered in dreadful agony till four o'clock the next morning, when he expired.

On dissection, an abscess was found in front of the three superior cervical vertebrae, (which were denuded,) the size of a hen's egg, and which had pressed so much the parietes of the pharynx against the cricoid cartilage and upper part of the trachea, that respiration could not be carried on through the aperture that was made by the knife. A purulent infiltration had also penetrated down into the chest through the cellular membrane.

The Baron, in his remarks on this case, does not allude to the possibility of life being saved if the opening had been made lower down in the trachea, instead of the place which he pitched on for the operation. In all cases where tracheotomy is deemed necessary, the lower down the operation is performed, the more difficult it is—but the greater is the chance of success, for the obvious reason that we are thus the more likely to get below the obstruction.

CASE VI.—Wound of the Root of the Tongue, with loss of part of the Epiglottis.

General Murat (afterwards King of Naples) received, at the battle of Aboukir, a musket-shot, which traversed the neck, from side to side, wounded the root of the tongue, and carried away a portion of the epiglottis. Baron Larrey was on the spot, and rendered immediate assistance. The first phenomenon which he observed, was the discharge of the injured portion of the epiglottis, followed by a considerable expectoration of frothy blood.

The General was harassed for some days with painful cough, loss of voice, &c. The Baron cleared the orifices of the wound both at its entrance and exit, and then introduced an elastic tube into the œsophagus, for the purpose of introducing liquid nourishment and drink into the stomach. This was necessary, as there was no proper valve to prevent the ingress of substances into the trachea. In the course of eighteen days, however, the parts had so accommodated themselves to the loss of a portion of the epiglottis, that his illustrious patient was able to swallow with little or no inconvenience.

CASE VII.—Loss of the whole of the Epiglottis.

In this case, which was that of a soldier in Egypt who was wounded by a musket-ball on the 21st of March, 1801, the whole of the epiglottis was carried away. The poor fellow was devoured by thirst, but could not drink, and harassed with incessant cough. In this dreadful state he continued four days, without any relief. When Baron Larrey saw him he was in the most piteous and dangerous condition. The Baron was enabled to pass a gum-elastic tube down the œsophagus, and through this to introduce liquids into the stomach. By a long and assiduous perseverance in this measure, the life of the soldier was saved, and nature supplied the place of the epiglottis by a contrivance of her own.

Two other cases, nearly similar, are related by the Baron, but the foregoing are, we think, sufficient for the elucidation of the present subject*.

MR. LIZARS' REJOINDER TO DR. RITCHIE.

To the Editor of the London Medical Gazette.

SIR,

THE anxiety which you have hitherto manifested to do justice to your correspondents, induces me to think you will readily admit a rejoinder to the communication from Dr. Ritchie, inserted in your number of the 19th ult. I offer it more from regard to the

* Med. Chir. Review, from Clinique Chirurgicale.

principle of treatment for which I have contended, as requisite in certain cases of hernia, than out of any solicitude to defend myself against insinuations which I know to be either erroneous or irrelevant. I am perfectly willing, therefore, to allow Dr. Ritchie's report of one of the cases formerly detailed by me, to be considered as substantially correct in relation to the question on which I have delivered my opinion. The minuter accuracy to which that gentleman lays claim, does not, in the slightest degree, affect my general statement, or the reasoning formed on it; and the profession will, I have no doubt, see it their duty to judge, in a matter of great practical importance, on more enlarged observations than the experience of any individual, however recorded, can furnish. Still a character for fidelity is so essential to the usefulness of a teacher, that indifference to allegations of the contrary, expressed or implied, would seem to me equally unprofessional and morally vicious.

The differences between my original statement regarding the case of Janet Sutherland, in the Medical Gazette for February last, and that of Dr. Ritchie's, in the Medical Gazette of the 19th ult. may be easily explained in part, though not altogether, for a reason which it is now my imperative duty to mention. A report drawn up by Dr. Ritchie, then house-surgeon to the Infirmary, necessarily came under my notice, as officiating in the absence of my colleague, Mr. Liston; and, as is the privilege of any one holding my office, I made a few corrections and additions to it, which appeared to me to be called for by circumstances; but, assuredly, these did not involve any change of outline, nor affect the real demands of the patient. From that report, aided, for perspicuity's sake, by my notes and recollection, I gave the statement which was published in your journal, and likewise circulated by me, in a separate form, among my pupils and medical acquaintances. On reference to your own pages, it will be seen that, in introducing the case, I say simply, "I shall detail it at length from the reports;" words which do not quite bear out Dr. Ritchie's expression—"I beg leave to present you with the *genuine* reports made by me in the surgical journal of the house, and said to be *verbatim* extracted by Mr. Lizars." My answer on this point, therefore, is short: *I did not say verbatim extracted*. I might even retort, were this not trifling, that the professedly *genuine verbatim* extract would be found somewhat faulty if compared with the *presently existing prototype*. I say *presently existing*, by way of distinction. And why? The original report, corrected and having an addition in my own hand-writing, as above-mentioned, is no longer to be met with! The house journal which once contained it,

contains it no more; but exhibits a *missus*—namely, between pages 62 and 66. How to be accounted for, it is not worth my pains to inquire! Possibly an admirer of the *genuine*, scandalized at the adulteration, conceived there was no other mode of purification than by fire! But, to abandon this topic, I have only to refer to my colleagues who were present at the consultation, and who continue of the same opinion now as before; thus bearing out the propriety of my operative interference. You and your readers, I presume, will consider their sentiments as ample sanction of my conduct, and a warrant for one of the greatest modifications made by me on the original report—*vis*, the consultation held on the case; the result of which, as my former statement expressed, was the operation. Moreover, they supply, in my judgment, and to my feelings, at least, a satisfactory answer to the virtual reprehension which Dr. Ritchie mingles with his recapitulatory and didactic remarks.

I have only to say, in conclusion, that as, on the one hand, I did not see the patient "when formerly in the Infirmary, under Mr. Liston's care," I could not possibly infer the perfect resemblance or identity of symptoms then and subsequently manifested; so, on the other, in the unavoidable absence of that gentleman, I could not possibly be benefitted either by his concurrence or opposition of sentiment, respecting the urgency of her claim on our attention. When, therefore, I declared, as Dr. Ritchie justly informs you, that her symptoms did not admit of farther delay, I spoke from conviction, which, though it might have been erroneous, was nevertheless honest; and it was besides so far safe, that it urged me to advise with those who were competent both to correct and to support my opinion.

I should have replied to Dr. Ritchie's communication earlier, had I not been occupied with my lectures.

I am, sir,

Your very obedient servant,

JOHN LIZARS.

Edinburgh, 34, York-Place,
23d April, 1831.

SYRUP OF POPPIES.

To the Editor of the London Medical Gazette.

SIR,

It is with regret that I have to publicly complain (through your medium) of the censors of the Royal College of Physicians, and the authorities of the Apothecaries' Company, in not *strictly examining*, in apothecaries' shops, their drugs, and the official preparations of the London Pharmacopœia; for in two instances lately have I

been called to rescue children from the almost fatal effects of laudanum, which, mixed with simple syrup, had been sold for *syrup of the white poppy*. A case occurred about two years ago, where a child died from a small dose of this compound having been administered by the mother, who had previously given the same quantity of the "pure syrup of poppy," with advantage, to her offspring.

This being a subject of public importance, I have to request an insertion of this in your next number, and remain

Yours obediently,
H. W. DEWHURST,
Surgeon, &c. &c.

May 3, 1831.

ON THE INHALATION OF CHLORINE IN CONSUMPTION*.

CASE I.—A young lady, twenty-eight years of age, tall in stature, of contracted chest and delicate habit, and of a family in which two brothers had died of pulmonary diseases. She had, when M. Costa first saw her, frequent cough, copious expectoration of mucus, with lumpy matter, and occasionally blood; great oppression of the breathing on motion, daily rigors, with nightly sweats, loss of appetite, much emaciation, and suppressed catamenia. The antero-superior part of the left side of the chest sounded dull, and presented a complete absence of respiratory murmur. These complaints were of five months standing. From the 12th till the 30th of March no particular change occurred under the ordinary palliative treatment of phthisis. In the early weeks of April the expectoration became more homogeneous, and exhaled the murine or musty odour which some consider characteristic of the formation of tubercles. At the same time the other symptoms became worse; and at the part of the chest which sounded dull there was a slight mucous r le and imperfect pectoriloquy. At the end of the same month the pectoriloquy was more distinct and extensive, the respiratory sound, from the description, appears to have been cavernous r le, and over the region of these sounds the sound on percussion was now hollow. Supposing M. Costa to be skilful in the use of the stethoscope and percussion, which we have neither means of knowing nor reason to doubt, there is in this narrative as complete evidence of a phthisical cavity having been formed as can possibly be procured. Seeing the inutility of his previous treatment, M. Costa resorted to the inhalation of the vapour

of a warm solution of chloride of lime much diluted. In six days the sputa and sweats were considerably abated, and the former free of f tor. Five days later the chloride was suspended on account of a sudden increase of fever, with pain of the chest; and the expectoration soon recovered its original ill-conditioned qualities. On the 20th of May the inhalation was resumed and persevered in till near the end of June. In ten days the expectoration became again less abundant and of better character, and, besides other important ameliorations, the pectoriloquy was more circumscribed. In the middle of June the catamenia reappeared, the night sweats ceased, the expectoration was a clear, insipid, scanty mucus, the pectoriloquy ceased altogether, and the natural respiratory r le began to be heard in the portion of the chest where it was wholly absent two months before. Towards the end of the same month, the whole of this part of the lung was pervious, except "a very small part corresponding to the centre of the second rib, which M. Costa looked upon as the cicatrix left by the obliteration" of the cavity. During all this period the young lady's general health and strength progressively improved; she married in October, afterwards became pregnant, and finally was brought to bed of a fine child, without any injury to her health; so that M. Costa thinks himself fully authorized to consider her cure as complete and permanent.

CASE II.—A delicate female, wife of a physician. Towards the end of April 1828 the respiratory murmur was found to be wholly wanting in the summit of the right lung, where, both before, behind, and in the axilla, the sound of the voice was intermediate between bronchophony and pectoriloquy. In the left side there was dulness on percussion over the upper two-thirds. Both sides presented very generally mucous r le. On the 1st of June there remained only slight dulness of sound on the left side, and slight bronchophony, with mucous r le, on the right. After this no stethoscopic examination was made; but the lady soon got well, and continued so in November 1830.

CASE III.—An officer's lady, both of whose parents died of phthisis. In the middle of June 1828 there was crackling r le, sometimes dry, sometimes moist, in the lower region of the left lung; dulness on percussion, cavernous r le and feeble pectoriloquy in the upper part of the same lung, and sonorous r le in its middle posterior region. About the middle of August the dulness of sound on percussion was less, and the sonorous r le behind much diminished; but the other stethoscopic signs were unaltered. In the middle of September, there was no longer either crackling or cavernous r le, and the pectoriloquy had become doubtful;

* Edinb. Med. and Surg. Journ.; from the Archives G n rales de M decine.

and at the end of the month there was neither pectoriloquy nor dullness on percussion. At the close of October she was free of complaint.

CASE IV.—A young Spanish gentleman, whose mother, as well as two of her children, died of phthisis, presented on the middle of July 1828, along with the general symptoms of the disease, the following auscultatory signs: under the left clavicle a slight cavernous râle, with doubtful pectoriloquy, and dullness on percussion around this spot to the distance of two inches on every side. In the middle of October there was no longer any pectoriloquy or cavernous râle, and the dullness of sound on percussion was much more limited. At the end of that month the sound on percussion was every where natural, and the natural respiratory murmur was heard in every part of the lung. About a month afterwards he had a return of the general pectoral symptoms, which had previously ceased altogether, but there was no return of the phthisical indications supplied by the stethoscope on percussion, and he again got quite well in the course of December. From that period he has continued free of complaint.

CASE V.—A merchant, 35 years old, of spare habit, and liable to symptoms of impending phthisis for fifteen years, presented towards the end of August 1828, the following symptoms: dullness of percussion in the whole posterior surface of the left side of the chest, also remarked anteriorly, though much less distinct, except under the clavicle; in which last quarter there was pectoriloquy, cavernous râle, and cavernous respiration in a very circumscribed point. At the end of September the cavernous râle had ceased, and the other signs, though still present, were less marked. About the middle of October there was neither pectoriloquy, cavernous respiration, nor even mucous râle, but merely dullness on percussion over the place where the indications of a cavity formerly existed. At this time the patient was in good health, and he continued well at the close of the ensuing winter.

CASE VI.—A medical student, 20 years of age, and of delicate constitution. In the middle of January 1828 there was generally obscurity of sound, and in some points complete dullness on percussion; anteriorly, near the middle of the left side of the chest, at a point corresponding with the seat of the pain, there was very distinct pectoriloquy, cavernous respiration, and cavernous râle; and posteriorly there was general mucous râle. About the middle of April the mucous râle, cavernous râle, cavernous respiration, and pectoriloquy, together with the surrounding dullness of percussion, had completely disappeared, and natural respiratory râle could be heard in every part of both sides of

the chest. He was now in a state of full convalescence, soon regained strength and flesh, and at the time of the publication of the author's paper, continued to enjoy good health. This patient was examined stethoscopically by several physicians of note, both before and after the indications of a cavity ceased to present themselves.

CASE VII.—A bootmaker, 29 years of age, was examined by M. Cottereau in April 1829. Percussion gave some obscurity of sound over the whole right side of the chest, complete dullness an inch and a half below the clavicle, and pretty natural sound in the left side, except at its inferior and superior regions; the stethoscope indicated a feeble natural râle at the lower part only of the right side; in the axilla, under the clavicle, and in the supra spinous fossa of the scapula, very distinct pectoriloquy, with mucous râle; and in the left side natural râle every where except at the summit of the lung, where it was inaudible, and at the mamma, where it was crepitating. At the end of May the general symptoms were greatly mitigated; but the auscultatory signs were the same. In the middle of June, the obscure sounds of the left and right side on percussion were no longer remarked; the completely dull point of the right side was somewhat sonorous, the pectoriloquy doubtful, and the mucous râle scarcely to be heard. In the beginning of July, the pectoriloquy had ceased altogether, and his general health was completely restored. This patient, too, was examined by several eminent physicians, who were convinced of the existence and subsequent disappearance of a cavity. In November 1830 he continued in a state of perfect health.

CASE VIII.—A tinsmith, 30 years of age, whose father died of phthisis, was examined for the first time by M. Cottereau in the middle of February 1829. The right side of the chest sounded obscurely over its lower two-thirds, and completely dull over its upper third, where the stethoscope indicated cavernous râle, and pectoriloquy both before, behind, and in the axilla; there was also general mucous râle of that side; in the left side percussion gave some dullness of sound under the clavicle, but elsewhere a clear natural sound; and at the apex of the corresponding lung there was tracheal respiration. At the end of June the respiratory râle was natural in the lower-third of the right side, while the cavernous râle there, as well as the general mucous râle, was scarcely to be heard; but the dull sound on percussion and pectoriloquy continued in the right side. In the middle of August there was no pectoriloquy, but still dullness of sound; and from having been apparently in an advanced state of phthisis, he was able to resume his employment, had no cough, expectorated merely a little white mucus in the morning, sweated when he

worked hard, and could not walk quick without having beating of the heart and dyspnoea. In August 1830 he was in the same state.

CASE IX.—A female, 28 years of age, whose mother and sister had died of phthisis, was attacked with the usual symptoms of that disease subsequently to a miscarriage. In the beginning of May 1829 she had complete dulness of sound at the summit of both lungs, and in the middle third of the left side, with much general mucous râle, and over a small point, two finger-breadths below the right clavicle, distinct cavernous râle and pectoriloquy. In the beginning of May, M. Cottereau confirmed the opinion of her ordinary medical attendant, as to the presence of these symptoms. On the 1st of August, the only unnatural auscultatory sign which could be elicited was circumscribed dulness on percussion over that point only where the pectoriloquy was formerly heard. From that time till November 1830 she has continued quite well, and free from any stethoscopic indication of a return of her complaint.

CASE X.—A merchant, 46 years of age, subject, as well as several other members of his family, to strumous enlargement of the glands, came under M. Cottereau's care, with phthisical symptoms, about the beginning of July 1829. The chest was more contracted on the right than on the left side; the left sounded well, but the right was dull in its two upper thirds; the left presented mucous râle above, and no unnatural stethoscopic indication elsewhere, but the whole right lung was almost impermeable to the air, while at the third intercostal space, two inches from the sternum, there was cavernous respiration and bronchophony approaching to pectoriloquy. On the 1st of October these signs no longer existed any where, the sound on percussion, the sound of the voice, and the respiratory râle, being every where natural; and from that time he has continued in a state of perfect health.

CASE XI.—A lady, 23 years of age, who had lost a sister from phthisis, consulted M. Cottereau for similar complaints in the beginning of July 1829. There was dulness on percussion under the right clavicle at the distance of three inches, tracheal respiration and distinct pectoriloquy at the same point and in the corresponding region behind, and in the left side mucous râle here and there, without any other indication of disease. At the end of the following April, percussion and the stethoscope no longer indicated any trace of disease, and her health was perfect, and continued so up to the date of the publication of the case.

CASE XII.—This case, which is by much the most important of the whole, we shall relate more fully than the rest. A married

female, 27 years of age, of delicate constitution, subject in her younger years to scrofula, and who had lost a sister from phthisis, was attacked, in December 1827, with dry cough, gradually, but slowly, increasing in frequency. In April 1828 she had frequent hæmoptysis. Nine months after that she had a safe delivery, after which the pectoral symptoms increased in severity. In July 1829, when M. Cottereau first saw her, she was greatly emaciated, the skin had a dry leaden aspect, the eyes were dull, the extremities frequently cold, the appetite indifferent, her cough not severe, but frequent, especially in the morning, with copious easy expectoration of greenish yellow or greyish, opaque, consistent masses, amidst clear, viscous mucosity; there was also constant pain in the larynx and between the shoulders, with shifting pains throughout the chest,—great oppression,—and almost complete loss of voice. The sound on percussion was very clear in a circumscribed spot about an inch under the right clavicle; around this spot perfectly dull, and throughout the rest of the right side somewhat obscure; but on the left side it was natural, except that some obscurity of sound existed in the lower third. In the axilla, as well as in the right subclavicular region, at the spot already mentioned, there was unequivocal cavernous respiration, cavernous râle and pectoriloquy,—around this spot a complete absence of respiratory murmur, and in the rest of the right lung, tracheal respiration, with slight crepitating râle,—in the left side, natural respiration in the two upper thirds, mucous râle in the lower third. The pulse was 80, but very irritable under the slightest exercise, the breathing always hurried, and a hectic paroxysm occurred every evening, with its usual accompaniments and termination. On the 20th of July the inhalation of chlorine was begun, but, after a day or two, an intermission was necessary, on account of an uneasy sense of heat and dryness in the back of the throat, which appears a very common effect of the chlorine when first used. In a few days, however, it was resumed, and gradually increased to ten inhalations per day. During the three first weeks of August two other intermissions were required, on account of an increase of pain and a sense of heat in the chest. About the middle of September the general symptoms were greatly mitigated. For the ensuing month the inhalation could not be persevered in, on account of the state of the chest; but it was resumed at the middle of October, and continued regularly afterwards. At the middle of November the amendment was so great that the lady considered herself quite cured. Towards the close of December her state was as follows:—The appetite, strength, and flesh, natural; the

cough and expectoration gone; the breathing not affected by walking or climbing; the sound on percussion dull over a circumscribed spot, corresponding with the point where pectoriloquy was formerly heard, and the respiratory r le inaudible in the same quarter; but every where else the lungs appeared perfectly in their natural condition, free of morbid r le, as well as of pectoriloquy. The inhalation was persevered in for security's sake till the middle of January.—For three months afterwards, this patient continued to enjoy uninterrupted health. Subsequently, however, she was exposed to frequent fatigue and night watching, in consequence of the illness of her infant; and at the end of August she was seized with symptoms of general fever, which proved fatal in four weeks, without having ever been accompanied with any signs of an affection of the lungs. In giving an account of the dissection, we may confine ourselves to the appearances in the respiratory organs. The epiglottis, larynx, and windpipe, were natural. Two cervical glands on the right side were enlarged to the size of small nuts, and contained each a nucleus of friable, chalky-like matter. Both lungs were pale grey, pliant, and crepitating. The left adhered here and there to the costal pleura by old adhesions. In the middle part of its upper lobe there was a tubercle as big as a pea, similar to the nuclei of the diseased cervical glands, and also some minute tubercles in the upper portion of the same lobe. The right lung was free of adhesion. "At the fore part of its apex there was, over a space 18 lines long and 8 deep, a darker tint of the tissue, with very firm consistence, and an appearance of wrinkling; and when this mass was cut into, it was found composed of hard, compact, almost fibrous tissue, of a slate colour, marbled with greyish white; it was not traversed by any bronchial tubes, all of which were obliterated as they approached it. On the edge of this apparent cicatrix there was a small steatomatous-like tubercle, scarcely a line in diameter; and in various parts of the upper lobe of the same lung about a dozen minute miliary tubercles; but the tissue of that lung, both around the tubercles and in its other lobes, was quite healthy.

CASE XIII.—A corset-maker, 19 years of age, liable to scrofula, and whose father died of phthisis, was subjected to M. Cottereau's treatment in the middle of December 1829; whilst labouring under the usual general symptoms of consumption. Percussion produced on the left side, immediately below the clavicle, a clear sound,—around this point distinct dullness of sound as low as the inferior third,—and on the right side a dull sound in the upper fourth. The stethoscope indicated pectoriloquy in the upper

third of the left side, both before, behind, and in the axilla, impermeability of the middle third, weak respiratory and subcrepitating r le in the lower third,—and in the right side impermeability of the upper third, natural or mucous r le in the remaining regions. At the beginning of August the dullness on percussion, the pectoriloquy, and mucous and subcrepitating r les, had entirely ceased, and with them her pectoral complaints. In November 1830, she continued to enjoy a state of confirmed good health.

The author concludes his cases with a short and moderately-expressed paragraph, the close of which we recommend to the notice of Sir C. Scudamore and his associates, whose experiments on the same subject have been noticed in our review department:—"Whatever opinion practitioners may form of these cases, they ought, at all events, to be induced by them to make personal trial of the inhalation of chlorine before passing final sentence as to its efficacy or inutility; and this is my only object in writing the present essay. A second series of cases, which will be published presently, will farther serve to show, that where the success of the remedy has been less complete, or actually nothing, the patients at least experienced obvious relief, and apparently a prolongation of their existence beyond what could be rationally expected in ordinary circumstances, considering the extent of the organic disease."

LITERARY INTELLIGENCE.

In the Press—A Manual of State and Forensic Medicine, compiled from the best Medical and Legal Works; being an Analysis of a Course of Lectures on Medical Jurisprudence, annually delivered in London, and intended as a Compendium for the use of Barristers, Solicitors, Magistrates, Coroners, and Medical Practitioners. By Michael Ryan, M.D. Member of the Royal College of Physicians in London; Lecturer on the Practice of Medicine and Medical Jurisprudence, at the Medical Theatre, Hatton-Garden, near St. Bartholomew's Hospital, &c.

BOOKS RECEIVED FOR REVIEW.

A Synopsis of the Bones, Ligaments, Muscles, Blood-Vessels, and Nerves of the Human Body. By William Sands Cox, Surgeon, &c. Birmingham.

The Pharmacopœia Universalis; or complete Encyclopædia of the Materia Medica, contained in the Pharmacopœias of London, Edinburgh, and Dublin, as well as of all those of Europe and America. By A. J. L. Jourdan, M.D. of Paris. Edited by J. Rennie, A.M. &c. Part I.

W. WILSON, Printer, 57, Skinner-Street, London.

THE LONDON MEDICAL GAZETTE,

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SATURDAY, MAY 28, 1831.

OBSERVATIONS
ON THE
APPLICATION OF CHEMISTRY TO
PHYSIOLOGY, PATHOLOGY, AND
PRACTICE.

By WM. PROUT, M.D. F.R.S.

*As delivered by him, in the Gulstonian Lectures,
at the College of Physicians.*

LECTURE I.

*Introductory Remarks—Reasons why
Chemistry has hitherto been applied
with so little success to the medical
sciences.*

*The organic agent employs material ele-
ments and agents without changing
their nature—Reasons for this opi-
nion.—Difference between organic and
inorganic bodies.—Influence of minute
quantities of foreign bodies upon com-
mon chemical and organic action—
Mr. Herschel's Experiments—The
action of Miasmata, &c. referred to
this principle.*

*Consideration of the modes in which
Chemistry regarded as a science and
as an art can be best applied to the
purposes of Physiology and Pathology
—Conclusion.*

THE subject on which I have the honour of addressing you is one of great interest, and daily becoming of more and more importance to the physiologist and pathologist; namely, the consideration of how far chemistry can be applied to physiology and pathology, and of the modes by which the inexhaustible powers of this science can be best directed, so as to ensure its utmost advantages.

In the present state of physiology and pathology, if we scrutinize closely our notions and reasonings, on almost any subject, we shall find them, for the most

part, to be either purely mechanical or metaphysical. The human mind, in its pursuit after truth, quits with reluctance the dominions of quantity, and hence is too apt to push its laws far beyond their legitimate boundaries. A few of the phenomena presented by living organized bodies are obviously of a mechanical nature; but do we reason justly, in the great majority of instances, when we attempt to explain the most complicated phenomena by the assumption of a little more or less blood, or other fluid; by the presence of enlarged or contracted vessels or apertures; by diminished, excessive, or deranged vascular power or action, and a variety of similar circumstances? Or are our notions of the operations of remedies expressed by such terms as evacuants, deobstruents, tonics, &c. all having reference to mere quantity, either in mass or power, a whit more satisfactory? On the other hand, when we quit material grounds, and launch into the wide ocean of metaphysics, all is fancy and hypothesis; and nervous power, nervous irritability, morbid and healthy, nervous sympathy, and a host of other terms of similar character, are for the most part mere words, to which no two individuals attach exactly the same meaning, and which often have no meaning at all, but are nothing more nor less than a technical gloss to cover our ignorance.

Now between these two extremes—the purely mechanical on the one hand, and the purely metaphysical on the other—there lies an immense chasm, in which is included by far the greater proportion of those important changes which take place in organized beings. The nature of these changes, and of the laws by which they are conducted, have

probably no exact prototype among those of inanimate bodies, but they are obviously most nearly allied to the changes and laws of common chemistry: accordingly, chemistry, from its earliest dawn as a science, has been eagerly pressed into the service of the physiologist; and chemists of the first talent have laboured most assiduously, and exerted all their powers, to further his views, but hitherto without the expected results; and it must be fairly confessed, that physiology and pathology have derived much less advantage from this branch of knowledge than might have been expected. The reason of this failure no doubt is to be ascribed in part to the difficulty of the subject; but it is no less true, that it has been rendered the more signal by the imperfect manner in which the science has been applied. While chemistry was little more than a branch of natural philosophy, and confined to those who had not studied physiology, what could be expected from it? The utmost that a mere chemist could be supposed to effect, would be to examine an organized body as he would a mineral one, and tell you it was soluble in this and precipitated by that, and so on—all very important information in its way, but unfortunately of a description totally useless to the physiologist, and calculated only to disgust him. Another fatal rock on which those have split who have attempted to apply chemistry to physiology and pathology, has been the hasty assumption that what they found by experiment to be wanting, or otherwise deranged in the animal economy, was the cause of particular diseases, and that these diseases were to be remedied by supplying or adjusting artificially the principle in error. Now, in general, nothing can be more absurd than such reasoning as this; and the physiologist, or pathologist, who adopts facts, and reasons upon them in this manner, as a mere chemist would do, will be almost certainly led astray; and if he be given to castle-building, and construct his airy fabric on such a foundation, he will sooner or later have the mortification of finding it tumble about his ears, and perhaps his own reputation buried in the ruins.

Before he can hope to derive much real benefit from chemistry, the physiologist must turn chemist himself. In conjunction with the phenomena presented by living organized bodies, with

which he ought to be thoroughly acquainted, he must carefully study their common chemical properties, their ultimate composition, the laws of their formation and change, and a multitude of other matters which the mere chemist is apt to overlook, or knows not how to appreciate even if he observes them. With information thus acquired, and an ordinarily sound judgment, he will soon discover, on the one hand, what he can *not* do, and on the other, what is really within his power. He will soon discover, for example, that nature will not permit him to officiate as her journeyman, even in the most trifling degree; or in other words, that he is as little able to remedy or supply, in a direct manner, what is amiss or wanting in organic action, as he is to remedy or supply an injured nerve or muscle; and that the only way in which, for the most part, he can hope to influence her operations, is through the indirect agency of those circumstances which naturally possess the power of influencing them, and the management and control of which are, to a certain extent, within his power. Another point which he will do well to shun, is idle speculation on the nature of the living or vital principle of organized bodies. The true and legitimate object of inquiry for the physiologist ought to be, not what this principle *is*, but what it *does*; just as the laws and effects of gravitation are legitimate objects of inquiry; though we know nothing, and probably never shall know any thing, of the principle of gravitation itself. Let us, therefore, in conformity with this view, inquire briefly into the phenomena presented by organized beings.

1. In the first place, with respect to the material elements entering into the composition of organized beings, we may observe that these exist in the world in great abundance in the inorganic state, in which state they possess no peculiarities, but are subject to all the agencies and laws which influence other matters. Organized bodies also are no less capable of being influenced by the same agencies and laws; a fact which seems to shew that the organic principle, in adopting material elements, either cannot, or at least does not, adopt them in the abstract, but adopts the whole together—the material invested with all its natural powers. But as this is a most important point,

which I am anxious to establish, in opposition to a notion I believe very prevalent among physiologists, that the organic principle has the power of detaching matter from its ordinary and natural properties, and investing it with new ones, and thus of radically changing or subverting the laws of common chemical action—I shall endeavour, before we proceed, to illustrate it a little further.

Let us take a mass of sugar, as a familiar example of a substance formed by an organic principle, and which probably will never be formed by any other agency. Sugar has been ascertained, and is generally admitted, to be composed of three elements—hydrogen, carbon, and oxygen, combined together in certain proportions. Now what power, I ask, is it, which, at this moment, keeps the particles of the three elements composing this sugar together in its present state? Will any one contend that it is the organic principle of the plant in which it was formed perhaps many years ago? Would not this supposition be as unnecessary as absurd?—for do we not know that the elementary particles of all bodies, or at least of those which form sugar, possess a natural and inherent affinity for one another—the hydrogen, for example, with the carbon, or with oxygen, or both? And are not these natural affinities among its component particles quite sufficient to account for at least its present existence? If this supposition be admitted, must we not be likewise compelled to admit that this sugar has *always*, from the moment of its first formation in the cane, existed, in virtue of the same natural affinity, among its particles? And, to push the argument still further, must we not suppose, in this case, that, even at the moment of its formation, the organic principle of the plant, if it exerted any, must have exerted powers *absolutely identical* with those which now keep its particles together?

We have reduced the argument, then, to this state: in the immediate formation of sugar, either the organic principle did *not* impart any new power whatever to the particles of which it is composed, and causing them to combine together, or it imparted to them a power absolutely identical with those they already possessed, and which naturally belonged to them. Now the latter alternative is directly at variance with that principle of logic which forbids the assumption of

two causes for the production of an effect, when one cause already exists which has been proved, or is known, to be sufficient for that purpose. The conclusion, then, from the whole argument, is, that the organic principle of the plant does not at this moment, nor has not at any time, even at the moment of its formation, acted as the cause which keeps the elements of sugar in their present state of union; but that they first combined, and still remain in union, in virtue of the natural and inherent affinities existing among the particles of which it is composed; and the same argument, with some modifications, may be extended to all organic compounds.

2. But organic compounds in general *do* differ very much, in their sensible and other properties, from those of the inorganic kingdom; we have, therefore, to inquire briefly, in the second place, into the nature and reason of these differences. Organized bodies in general do not crystallize; instead, therefore, of being bounded by straight lines and angles, they are usually more or less rounded, and their intimate structure is amorphous. Indeed it is a remarkable fact, that no crystallizable body (even water and the saline matters of the blood are doubtful) seems capable of constituting a portion of a living organized being; such products, when they do occur, being either the result of excretion or of disease, or of some artificial process. Thus sugar, above-mentioned, in its crystallized state, is the result of an elaborate artificial process, the object of which is the separation of a number of other matters naturally existing in combination with it in the juice of the cane, and which, as long as they are present, effectually deprive it of the power of crystallization; and, indeed, it has been known, from time immemorial, that all organized bodies, when submitted to combustion, leave minute portions of earthy and saline bodies constituting their ashes. These bodies have been usually viewed as foreign matters accidentally present, but I never could bring myself to subscribe to this opinion; on the contrary, they have always appeared to me to constitute the grand difference between inorganized and organized bodies, and to perform the most important functions; or in other words, that organization cannot exist without them. The following are a few of my reasons for this opinion:—

Every one must have remarked how much the external characters and properties of all substances are liable to be modified by different modes of aggregation, and a slight admixture of foreign matters: this holds good both in the inorganized and organized productions. Thus, what can be more striking than the infinite variety of forms or conditions which common carbonate of lime assumes from these causes? Iceland spar, pure white marble, and common chalk, owe their differences solely to the modes in which their particles are aggregated; but these differences are trifling when compared with the infinite variety produced in the same substance by a slight admixture of other matters. Another familiar instance in which the *properties* rather than the external characters of a body are changed by a minute admixture of foreign matter, is *steel*; which important substance, as every body knows, is essentially composed of iron, combined or mixed with an insignificant proportion of carbon. The modifications, however, produced in the inorganic kingdom are by no means so striking and important as those produced by similar causes in the organic kingdom. In the inorganic kingdom, also, the primary compound in general, as in the instance of carbonate of lime, is fixed and definite in its nature, and thus easily separated from foreign bodies, and made to crystallize as we choose. But in the organic kingdom the case is very different; here the substances, though undoubtedly primarily composed according to precise chemical laws, are naturally so unstable in their condition, and so easily decomposed, that from this cause alone they can, in very few instances, be separated from the contaminating matters, and be obtained in a perfectly pure state.

But it is well known that the foreign bodies met with in organic products are more intimately mixed, and adhere with greater obstinacy to the primary elements, than similar substances in inorganized bodies. They are also, for the most part, so uniform and constant in their character in the same substance, that, whatever office they may be supposed to perform, it is difficult not to believe that it is a most important one, and quite as essential to the existence of the body in its organized condition as the elements of which it is chiefly composed. How

these bodies operate is not so easy to explain. That they do not enter into the composition of organized bodies in definite proportions, according to any known chemical laws at least, is evident; and the only notion that, for a long time, I could form to myself on the subject, was, that they perform an office which may be termed *interstitial*—that is to say, that they operate by being interposed, as it were, between the essential elementary atoms of organized substances, and thus prevent them from assuming the crystallized form, in which state they would be totally unfit for the purposes of the economy of living organized beings.

This mechanical explanation of the operation of minute foreign bodies, though probably correct to a certain extent, or as far as it goes, is obviously, however, inadequate to explain *all* the phenomena. Whoever has carefully studied the effects of minute quantities of matter upon common chemical action, and infinitely more upon organic action, must be aware that they often appear to exert energies totally inexplicable upon any known principles. The subject, however, has by no means received the attention it deserves; and, indeed, besides myself, I do not know any one that has attended to it at all—at least in the point of view in which we are considering it here. There is, however, one very important series of experiments made by Mr. Herschel, and published in the *Philosophical Transactions* for 1824, which struck me at the time as remotely bearing on the subject; and though, in the present state of our knowledge, these experiments can be hardly so applied as to throw much immediate light on the subject, they seem to me to open up a new and important field of inquiry, and to promise to lead hereafter to the most unexpected results.

For the particulars of Mr. H.'s experiments I must refer to his paper, and shall only observe, that he has shewn that an enormous power, not less than 50,000 times that of gravity, may be instantly generated by the simple agencies of common matters submitted to galvanic influence; as, for example, mercury alloyed with a millionth part of its weight of sodium, &c. That the powers thus capable of being developed are, in some way or other, connected with many of the phenomena and changes presented by organized beings, to an extent far beyond that contemplated by Mr.

Herschel, I have no doubt. We before attempted to shew that, in adopting and employing material bodies, the organic principle adopts and employs also those energies which are naturally associated with them—as the galvanic energy, &c. Now it must follow, I think, inevitably, that if the galvanic energy be made to operate upon bodies constituted, as all organized bodies are, of certain principles alloyed or mixed with minute quantities of foreign matters, that powerful actions of some sort or other must take place; for no one, I presume, will for a moment contend that these effects are confined to mercury. It deserves to be mentioned also, as a curious fact corroborating this supposition, that many of those minute foreign substances which Mr. H. found to exert most energy in his experiments, are precisely those most usually occurring in organized bodies, such as sulphur, phosphorus, magnesium, calcium, iron, &c.; and that the serum of the blood itself is a weak alkaline solution of soda, the very same as that most usually employed by Mr. H. in his experiments. The analogy might be even carried further; but I shall dismiss the subject for the present with a brief enumeration of some of the more important phenomena which seem to derive much elucidation from the views here brought forward. Among these may be mentioned, in the first place, the subtle matters of contagion and miasmata: these, whatever they may consist of, apparently exist in very minute quantity, and evidently operate by deranging or subverting organic action. To these may be added many medicinal substances capable of producing the most extraordinary effects in the smallest doses; the still more refined and recondite matters of light and heat, and a variety of others; all of which produce their effects by the agency of infinitely minute quantities, and that probably by attaching themselves to the principles composing organic bodies; and thus by suspending natural actions, or introducing new ones, influence or destroy life.

After this brief sketch of the nature of organized bodies, as compared with those from the inorganic kingdom, we may perhaps be able to form some notion of the general principles upon which the organic agent operates, and the nature of the influence it exerts in the formation of organic products.

Let us take the same body, sugar, as

the subject of illustration. Sugar, as before observed, is made up of three elements, two of which, hydrogen and oxygen, in the simplest state in which we are acquainted with them exist as gases; the other, carbon, as a solid. Now, in operating on these elements in mass, as we are obliged to do in our experiments, I need not say that we have never been able to cause them to combine so as to form sugar; but if, instead of operating upon the elements in mass, we were enabled to contrive an apparatus so constructed as to exclude all foreign agencies, and to bring the particles of each of the elements together in succession, there can be no doubt, from the natural affinity existing among these particles, that they would combine, and that the result would be the identical substance, sugar, the same as it is formed by nature. Now this is exactly the principle upon which all organic processes are conducted. No where do we see the organic agent act upon elementary principles in mass, as we are obliged to do in our experiments, but by the medium of a complicated and minute apparatus, which enables it to operate, as it were, on the ultimate particles of bodies, and by these means to exclude some and to bring others into contact, according to the design in view. With respect to the nature of the organic agent, this view of the subject leads us to the conclusion that in different instances it is endowed with different degrees of power, but that in all cases it must be considered as an ultimate principle, endowed by the Creator with a faculty little short of intelligence, by means of which it is enabled to construct such a mechanism from natural elements, and by the aid of natural agencies, as to render it capable of taking further advantage of their properties, and of making them subservient to its use. Nor does this view of the subject lead to materialism, or otherwise derogate from the wisdom and power of the Deity, but, on the contrary, is calculated to exalt both in our estimation; for is it not more consonant to our notions of infinite wisdom and power to suppose that the Deity created agents and materials originally endowed with all the energies and properties we have assigned to them, than to suppose that he originally created them imperfect, and is every moment obliged, as it were, to perform miracles by subverting

or extending their natural actions and properties? There is yet another advantage resulting from the views here attempted to be established, which I cannot refrain from mentioning before we quit this part of the subject; namely, that by representing organic action as an adaptation and extension of those more obvious changes constantly going on around us, it not only renders them legitimate objects of inquiry, but holds out the rational hope that by industry, and cautiously proceeding, step by step, from the known to the unknown, we may hereafter arrive at the solution of many of nature's mysteries.

We come now in the last place to consider very briefly the modes by which chemistry can be more immediately applied to the purposes of physiology and pathology.

Chemistry, like most other branches of knowledge, may be considered in a twofold point of view—as a *science* and as an *art*. The *science* of chemistry may be supposed to comprehend the knowledge of the primary laws which influence and regulate the combination of bodies, without reference to their common chemical properties;—the *art* of chemistry comprehends the practical knowledge of what is termed the chemical properties of bodies.

The *science* or philosophy of chemistry, I am sorry to say, is very little understood; perhaps no science less so, considering the attention that has been paid to the subject. The atomic theory of Dalton, by connecting chemistry with quantity was undoubtedly the greatest step that has been made in modern times; but by stopping where it did, I am not sure whether upon the whole, the science of chemistry has not been rather retarded by it than advanced: for to suit the imaginary standards of this bed of Procrustes, real results, I fear, have been too often extended or compressed beyond all legitimate bounds, and thus truth sacrificed to error. My notion of the atomic theory is, and always has been, that it does not present a just view of the laws which regulate the union of natural bodies, and consequently that it is inapplicable both to organic and inorganic chemistry. The light in which I have been always accustomed to consider it has been very analogous to that in which I believe most botanists now consider the Linnæan system; namely, as a conventional artifice, exceedingly conve-

nient for many purposes, but which does not represent nature. On the continent, the modification of Dalton's views, proposed by Berzelius, is generally adopted; but this, I fear, is still more imperfect than our own. In spite of this, however, and solely from their industry and practical skill, the Berzelian or continental school of chemists has got the start of us in many respects, and by mere dint of experiment has succeeded in establishing the curious and important doctrines of *isomorphism* and *isomerism*—doctrines totally inexplicable on the principles of Dalton and Berzelius, but which seem to me to flow necessarily, in conjunction with some others, from the principles which I have long considered as regulating the union of bodies in nature.

This is not the place, nor the occasion, however, to enter on the subject of chemical philosophy, even if I were prepared to do it in detail, which I am not; but in order that what follows may be the better understood, it may not be amiss to state very briefly some of the views to which I was led now many years ago, and which are quite at variance with the artificial system at present received, and seem to indicate rather the existence of a more natural system.

1. In the first place, bodies appear to be associated together in natural groups or families, having certain radical laws in common. Thus the three great natural classes or groups, which appear to essentially constitute the groundwork of all organized beings, may be denominated the *saccharine*, the *oleaginous*, and the *albuminous*. An account of the analyses of the principal objects of the first of these great classes, the *saccharine*, has been already published in the Philosophical Transactions for 1827; the other two have not yet been published. The radical law pervading the whole class of saccharine bodies is, that they are essentially composed of carbon and water in different proportions. The radical law pervading the oily bodies, as far as I have yet examined them, is, that they are essentially composed of olefiant gas and water, or have relation to this composition. The radical law of the albuminous class, I cannot yet venture to mention. When the analyses of all these three great classes are completed and published, it is my intention to point out in detail the curious and important results to which they lead; but not till then. In the

meantime it is my wish that the results which have already been, and which remain to be published, shall be thoroughly investigated by others, in order that their errors, if they contain any, may be pointed out, that I may not have the mortification of building my superstructure upon a sandy foundation.

2. The numbers conventionally employed by chemists, and termed atomic weights or chemical equivalents, I am disposed to view in a very different light from that in which they are usually viewed at present. Supposing them to be correct, they no doubt represent in general the quantities in which bodies *most usually combine*, but by no means always. Indeed, they appear to me to be often nothing more than one term of a natural series peculiar to each body, and determining its combination. Thus 9, the number assumed to represent the combining weight of water, is to be considered only as one term of the series 3 : 6 : 9 : 12 : 15 : &c., in all which proportions (and perhaps in still lower submultiples of them) this fluid enters into combination, perhaps quite as often as in the proportion 9, especially in the organic kingdom. Chemists have already a glimpse of this important fact when they speak of bodies uniting to others in the proportions of two, three, or more atoms, which, in fact, are nothing more nor less than different terms of a natural series, such as that above alluded to.

This view throws much light on the composition of bodies in general, and at the same time obviates many of those absurdities and false conclusions to which chemists are too often led by adhering to a single term. Thus, in a natural group or family, as the saccharine group for example, by adhering to a single number, as 9, for water, we should be led to fractions of atoms without end; but by considering the carbon as associated with different proportions of water, in terms of the above series (as experiment indicates to be the case) all these absurdities are avoided, and at the same time the existence of a beautiful law is indicated; and in connexion with this point, it may be further observed, that in general, the more simple the relations between the elementary weights, the more fixed and definite the character of the resulting product, particularly if the absolute weights of the elements have likewise a simple relation.

There is reason to believe that bodies, as they descend in the quantitative series, gradually lose their power of contributing to crystalline form, and acquire a merorganizing faculty*: this appears, at least, to be strikingly the case with water (one of the most important and frequent of all the merorganizing principles), which even within limits capable of being determined by experiment, often modifies crystallization very remarkably.

From these observations, which might be much extended, it will appear that before much can be certainly known respecting the real nature of organized beings, the subject of chemical philosophy must be better understood than it is at present, and the ultimate composition of bodies be much more accurately determined. In conjunction, too, with the ultimate composition of bodies, the nature of the merorganizing bodies must be carefully studied. This is an entire new field of inquiry, and one of the utmost importance and curiosity, and will, I have no doubt, hereafter throw no ordinary light on many of nature's operations. We shall then, for example, know why the red particles of the blood are merorganized by iron; why sulphur predominates in birds, phosphorus in fishes, lime in the secretions of the alimentary canal; how magnesia or magnesium is connected with nervous action, at least that of the ganglionic nerves; and an infinite variety of similar matters, the existence even, much less the *modus operandi*, of which is entirely unknown to us.

From the little progress that has been made in the philosophy of chemistry, and its great difficulty, we must be content, I fear, for many years yet to come, with a very limited knowledge of the subject. In the meantime, let us inquire very briefly how far the *art* of chemistry, or the consideration of the chemical properties of bodies, can be best applied to the purposes of physiology and pathology.

I have already said that the physiologist, in order to obtain the utmost advantages that chemistry is capable of contributing, must turn chemist himself, and carry on his researches in connexion with the phenomena of life, of which he must never lose sight for a me-

* *Mépos, partim*: see the paper above alluded to, Phil. Trans. 1827, where this term is provisionally adopted and explained.

ment. In the first place, and whenever it can be done, the substance to be examined should be detached from all others, and obtained in a crystalline form. On this part of the inquiry much valuable practical knowledge is to be obtained by a careful study of the essays of preceding celebrated chemists, and particularly of the French chemists, who have pursued this branch of inquiry farther than it has been carried in this country. When a substance cannot be obtained in a crystalline form, which is the case with by far the greater proportion of organic matters, we are obliged to quit altogether the solid foundation of quantity, and take our station among the uncertainties of mere quality, or sensible properties. Now every one must have remarked at the outset of his chemical career that the phenomena presented even by well-defined bodies, when submitted to the action of tests and re-agents, were often very different from what he had been led to expect; and that, from some trifling circumstance or other, he was constantly liable to fall into error; and, in short, in many cases, that it was not till after long and close attention that he was enabled completely to see his way, and separate the essential from the accidental phenomena. Even here, then, much depends upon the operator; and according as his skill and experience are greater or less, so will his statements be more or less entitled to confidence. But if this be the case with fixed and well-defined substances, how much more strikingly so is it with organized bodies—the phenomena presented by which, whether naturally, or as influenced by tests and re-agents, are so delicate and evanescent—so varied and infinite in number, that language is scarcely capable of conveying any adequate idea of them: hence the long and tedious details of precipitations, changes, &c. said to be produced by different re-agents on organic products, are for the most part entirely useless both to the chemist and physiologist, and by multiplying uncertainties, serve only to contribute to error.

Imperfect, however, as this department of chemistry is, and always must be, it is yet capable, when judiciously applied, of contributing much valuable information to physiology and pathology. Great care and experience, however, are necessary on the part of the operator, which alone will give that tact and power

of discrimination calculated to enable him to disentangle the intricacies presented to him, and to seize the clue that will lead him to truth. By its aid, for example, the physiologist can often identify the most delicate and refined organic products in a way that cannot be done by any other means, and thus be enabled to detect minute variations from the healthy standard, often of the utmost importance in a physiological and pathological point of view. Another field of inquiry in which this department of chemistry can be usefully applied is, the study of the effects produced by medicinal agents. Many of these, as is well known, often change or modify organic products, and particularly secretions, in a remarkable manner; and when the nature of these changes is understood, they often lead to the most valuable practical inferences with respect to the periods and modes of administering particular remedies. In short, the physiologist, in a great many instances, by the aid of chemistry, can so associate the evanescent and fleeting phenomena of life and of disease with the more tangible and intelligible phenomena of matter, as not only to be enabled to form a more just notion of their nature himself, but to convey it to others; and thus, instead of being obliged to permit the greater part of his knowledge to die with him, to hand it down, in an intelligible form, for the benefit of posterity.

Thus, then, (to recapitulate briefly what has been said) we may consider chemistry to hold a sort of intermediate rank between anatomy on the one hand, and metaphysics or psychology on the other; and by gradually coalescing with both, to connect the whole, as it were, into one great system. Of these extensive branches of knowledge, anatomy, from its obvious and mechanical nature, no less than from the great attention that has been bestowed upon it, is by far the best understood, and scarcely a nerve or fibre, perhaps, remains that has not been again and again demonstrated, so that comparatively little remains to be done in it. On the other hand, if we know little of the nature of living action or psychology, it has not been for want of inclination and attempts to investigate it, but simply from the nature of the subject, which, for the most part, is beyond our comprehension. While, if we turn to the vast and intermediate field, where, by industry and perseverance,

almost every thing is within our power, we find comparatively little done, and very few working. How is this? What is the reason that so important and interesting a branch of knowledge should be so unaccountably neglected, and that our knowledge, in fact, respecting it is little farther advanced than it was 20 years ago? How is it that a physiologist will sit down and rack his brains and invention to push mere mechanical principles to the most improper and absurd lengths; or choose to wander and lose himself in a labyrinth of metaphysical subtleties and errors, rather than attempt the investigation of what, by a little well-directed industry, is completely within his power? The circumstance, I confess, has always appeared to me most unaccountable, though I trust the opprobrium is about to be removed, and that this most important and interesting point of knowledge will soon obtain all the attention it deserves. The subject falls properly and exclusively within the province of the physician, and to the young and industrious aspirant it offers an immense field, where the prizes are many and great, and the competitors few. Mechanical principles, as applicable to physiology, are limited at best, and they have already been pushed as far as they safely can be; but here every thing is new, at least at present, and apparently unlimited; for chemistry, perhaps, more than any other science, depends for its advancement upon the gradual development of human knowledge.

That the physician of another age will be as familiar with the operations of the animal economy as he is at present with its anatomy, I have not the least doubt. The minute and ultimate anatomy is unknown to us—the minute and ultimate chemistry will always probably remain so; but all the great and obvious changes, like the great and obvious parts of the living machine, are within our power, and will be known: and, to push the comparison still further, I will venture to predict, that what the knowledge of anatomy at present is to the surgeon, in conducting his operations, so will chemistry be to the physician, in directing him generally, what to do, and what to shun; and, in short, in enabling him to wield his remedies with a certainty and precision, of which, in the present state of his knowledge, he has not the most distant conception.

COLCHICUM IN RHEUMATISM.

To the Editor of the London Medical Gazette.

SIR,

WE have lately had the opportunity in our clinical ward of testing the merits of colchicum in rheumatism, under circumstances (in this country at least) somewhat novel; and as the result is interesting, I send you the following observations for insertion, if you think proper, in your periodical.

I am, sir,

Your obedient servant,

ALEX. TWEEDIE,

Lately Clerk to the Clinical Physicians.

Guy's Hospital, 18th May, 1881.

Though colchicum has long maintained a very respectable rank in the list of our remedial agents for the cure of rheumatism, yet from time to time there have been some who have doubted its efficacy; and even when used with the happiest effects, the result has not been so speedy as to satisfy the sanguine expectations of many of its supporters. Much of this discrepancy of opinion is doubtless ascribable to the notorious fact, that the fluid preparations of the drug are compounded in many different ways by various practitioners—a circumstance of itself sufficient to produce great uncertainty of effect, and in many cases complete disappointment.

Another great cause of failure and uncertainty may perhaps consist in this, that the remedial principle of the drug is probably not entirely taken up by the menstrua in either of our pharmacopœial preparations; so that when the vinum, or the acetum colchici, disappoints our expectations, we are scarcely justified in condemning the drug as useless, whose specific principle has, under such circumstances, never been administered at all, or very partially. To obviate these objections it becomes necessary to administer the remedy *in substance*; and it is to shew the benefit of this plan of exhibition that I have ventured to trouble you with these remarks.

The form of application most commonly, I believe, adopted, and which has for some time past been practised by Dr. Bright in this hospital, is the same as that recommended in a recent number of your Gazette by Dr. Low-

ment. In the first place, and whenever it can be done, the substance to be examined should be detached from all others, and obtained in a crystalline form. On this part of the inquiry much valuable practical knowledge is to be obtained by a careful study of the essays of preceding celebrated chemists, and particularly of the French chemists, who have pursued this branch of inquiry farther than it has been carried in this country. When a substance cannot be obtained in a crystalline form, which is the case with by far the greater proportion of organic matters, we are obliged to quit altogether the solid foundation of quantity, and take our station among the uncertainties of mere quality, or sensible properties. Now every one must have remarked at the outset of his chemical career that the phenomena presented even by well-defined bodies, when submitted to the action of tests and re-agents, were often very different from what he had been led to expect; and that, from some trifling circumstance or other, he was constantly liable to fall into error; and, in short, in many cases, that it was not till after long and close attention that he was enabled completely to see his way, and separate the essential from the accidental phenomena. Even here, then, much depends upon the operator; and according as his skill and experience are greater or less, so will his statements be more or less entitled to confidence. But if this be the case with fixed and well-defined substances, how much more strikingly so is it with organized bodies—the phenomena presented by which, whether naturally, or as influenced by tests and re-agents, are so delicate and evanescent—so varied and infinite in number, that language is scarcely capable of conveying any adequate idea of them: hence the long and tedious details of precipitations, changes, &c. said to be produced by different re-agents on organic products, are for the most part entirely useless both to the chemist and physiologist, and by multiplying uncertainties, serve only to contribute to error.

Imperfect, however, as this department of chemistry is, and always must be, it is yet capable, when judiciously applied, of contributing much valuable information to physiology and pathology. Great care and experience, however, necessary on the part of the chemist, which alone will give that tan-

of discrimination calculated to enable him to disentangle the intricacies presented to him, and to seize the clue that will lead him to truth. By its aid, for example, the physiologist can often identify the most delicate and refined organic products in a way that cannot be effected by any other means, and thus be enabled to detect minute variations from the healthy standard, often of the utmost importance in a physiological and logical point of view. Another field of inquiry in which this department of chemistry can be usefully applied is the study of the effects produced by medicinal agents. Many of these, as is well known, often change or modify the properties of organic products, and particularly secrete in a remarkable manner; and the nature of these changes is such that they often lead to the most important practical inferences with respect to periods and modes of administering particular remedies. In short, the physiologist, in a great many instances, the aid of chemistry, can see the evanescent and fleeting phenomena of life and of disease with tangible and intelligible phenomena, as not only to be able to form a more just notion of himself, but to convey it to others; thus, instead of being obliged to hand it down in a form that will die with him, to hand it down in an intelligible form, for the benefit of posterity.

Thus, then, (to recapitulate what has been said) we may rank chemistry to hold a sort of rank between anatomy on the one hand, and metaphysics or psychology on the other; and by gradually connecting both, to connect the whole into one great system. The various branches of knowledge from its obvious and manifest sources, no less than from the most subtle, that has been bestowed upon the human mind, the best understood, the most refined, the nerve or fibre, perhaps, of the system, not been again and again that comparatively little done in it. On the other hand, the

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der—I mean the *vinum colchici*, combined with so much magnesia and Epsom salt as might suffice to procure several stools daily. Now this, though hitherto the most successful practice, was yet found to fail so frequently—to secum, in fact, so often inert, that Dr. Addison, our then clinical physician, was happy to avail himself of the evidence of Dr. Jackson, of Boston, in the United States, who was attending our clinical wards as a pupil, and who stated that in the hospital at Boston it was customary to administer the colchicum (for the cure of rheumatism) in substance, to the extent of 3ss. in twenty-four hours, combined with a little magnesia and salts, with such uniform good effect, that he had never had the opportunity of seeing any other plan of treatment called for or adopted, nor was depletion ever premised. Dr. Addison accordingly determined to give the remedy a fair trial, and the following cases, briefly related, will shew with what effect:—

CASE I.—W. Gibson, a delicate fair boy, æt. 10, admitted 2d March, 1831. At the time of admission the two wrists were the only parts affected with acute rheumatism, arising from exposure to cold a fortnight previously. His bowels were confined; pulse 100, full; tongue white, and great heat of skin. The *vinum colchici* was given, and an occasional dose of salts and senna with the *vinum colchici*, to keep the bowels free; but instead of decreasing, the disease gradually and steadily increased; other joints became involved; and notwithstanding the trial of quinine, opiates, antimonials, mercurials and salines, &c. one after the other, the disease continued to shift from one joint to another, and in the end to place him in a situation of considerable distress and suffering. On the 15th March the disease was at its height; both wrists and both ankles painfully inflamed, with less degree of pain in the loins and joints of the extremities generally; he could not move himself in bed without pain. Skin dry and hot; tongue coated, inclined to brown, and somewhat dry—red at the edges; bowels not open since yesterday; pulse 128, small and sharp. Considerable pain across the forehead; great thirst; no appetite.

The bowels were opened by means of an injection, and on the following day, March 16, he was in much the same

state as on the day before, when the following was ordered:—

Pulv. Radicis Colchici, gr. iv. 6tis horis, superbibendo Haust. sequent.
R Mag. Subcarb. gr. x.; Magnes. Sulph. ʒij.; Aq. Menth. ʒj.; M. ft. Haust.
R Calomel gr. j.; Antim. Tart. gr. ʒ; Opii Pulv. gr. ʒ; M. ft. Pil. h. s. s.

N.B. The above pill had been given for some nights previous without benefit.

March 17th.—Has rested perfectly well; one stool. The only remaining, and that a very trifling pain, affects the left shoulder; no headache; abdomen soft, slightly tender, with occasional griping pain at the lower belly; tongue furred, clean at the edges; thirst continues; complains of nausea since yesterday; pulse 90, more expanded, softer; slight perspiration about the face and neck.

Pergat.

18th.—Slept well; a very slight pain remains in the shoulder only; he complains of pinchings in the hypogastric region, with some nausea. Two semi-fluid yellow dejections; tongue cleaner; skin almost cool; pulse down to 66, softer, more expanded, and with a peculiar hesitation in its beat, not amounting to actual intermission; (the heart was similarly beating slowly and hesitatingly.) Pupils dilated; aspect free from suffering, its expression quite composed; head and face perspiring.

Being thus completely under the influence of the colchicum, and the rheumatism having been entirely subdued, it was thought expedient to withhold it, and the patient was directed to be kept perfectly still in bed.

Rep. Pil. h. s.

19th.—Slept well; no dejection this morning; complains of slight nausea, with a little tenderness on pressure of epigastrium. Tongue scarcely furred; pulse 66, less hesitating; appetite better. Has some griping pain in the lower belly, particularly during making water, with slight local tenderness on pressure.

Quiescat.

21st.—Rest good; no rheumatic pain; tongue and skin natural; bowels well open; pulse 68, regular and firmer; appetite better.

His convalescence was now esta-

bled; he had no return of rheumatism; and as the effect of the colchicum subsided, his pulse acquired its natural character; he lost all symptom of illness, and was sufficiently strong to be discharged on the 29th March.

CASE II.—Susan Simson, æt. 22, a married woman, of robust constitution, admitted 6th April, 1831, with acute rheumatism of the right knee, and of the right wrist, extending into some of the joints of the adjacent fingers. It commenced a week ago, and has been gradually getting worse till now. Pulse 120, jerking and sharp; tongue thickly loaded with moist white fur; skin warm, not perspiring; bowels not open; very little headache.

N.B.—She has been suckling her child up to the day of admission.

Ordered, *Pulv. Colchici, gr. iv. 4tis horis superbibendo haust. Magnes. c. Magnes. Sulphate.*

7th.—Five doses of the colchicum have been taken with the effect of procuring two not unhealthy stools without griping or nausea. The rheumatism in the hand and knee is less acute, but she has a fresh, very slight, seizure in the left knee this morning. Pulse 92, softer, more expanded; tongue less loaded; surface temperate; no headache.

Pergat.

8th.—Rheumatism nearly quite gone; a very little tenderness of the right wrist and knee alone remaining. Tongue more clean; pulse 74, much softer; bowels open thrice; copious loose yellow stools.

Pergat.

10th.—Rheumatism gone; pulse 60, expanded, and hesitating; four stools, of the same character as before; no headache.

Hab. Colchicum, 6tis. horis tantum.

From this time she had no relapse. She was well enough to sit up on the next day, and went out of the house quite well on 19th April.

CASE III.—R. Orton, admitted 30th March, a stout, dark-complexioned lad, the subject of rheumatism for three weeks. At the time of admission his wrists were swelled, stiff, and slightly red; and there was a less degree of inflammation in the shoulders. Pulse 72, full and sharp; tongue thickly furred;

no headache; not much thirst, or heat of skin; bowels open, but abdomen rather full.

Pulv. Colchici, gr. iv. 6tis horis superbibendo haust. Magnes. c. Magnes. Sulph.

March 31st.—Slept well. Slight pain on motion only in the right shoulder and fingers. Pulse 68, less sharp, and wider. Three or four copious, thin, yellow stools.

April 1st.—No pain. Some stiffness of the joints remains. Pulse 58, soft, and hesitating. Three dejections. Feels somewhat mentally depressed, with a little giddy pain across the brows.

April 2d.—Stiffness going off. Pulse 52, of the same character. Two stools.

Omit. Medicamenta.

3d.—Slept well, but there has come on a pretty smart relapse of rheumatism in the right wrist.

Rep. Colch. et Mist. ut antea.

4th.—A good night; the inflammation and pain of the wrist subsiding. Pulse 64; one stool; tongue nearly clean.

6th.—Rheumatism gone. Pulse 54, expanded and hesitating.

He left off the medicine on the following day, and left the house well on the 12th.

CASE IV.—James Williams, æt. 18, a dark, clear complexioned lad, admitted 23d March, with not severe rheumatism of the right shoulder and knee; the other joints being in still less degree affected.

The remarkable feature in this lad's case was an affection of the heart, the result of previous rheumatism, of which he had had several attacks. Five years ago he was laid up for two months with acute rheumatism in most of his joints. A year and a half ago he had another attack, that lasted eighteen weeks. He got up and exposed himself prematurely in his convalescence from this, and in consequence met with a relapse, with pain about the region of the heart (for the first time), frequent palpitations, and dyspnoea. He seems to have pretty well recovered from this, so as to be able to resume his occupation, which is quite sedentary, feeling no further inconvenience from his palpitation, &c. till his present illness, which came on five weeks ago. The rheumatic inflam-

mation since then has been seizing, in irregular succession, nearly all the joints of his extremities, and was at its height a week ago; at which time only did he begin to experience any inconvenience from the palpitations of his heart, which have since then been at times very severe indeed.

At present, pulse 120, full and quick, not hard. The heart's beat is remarkably forcible, even to the eye, but it does not seem diffused beyond the immediate vicinity of the organ. A very slight bellows-sound attends its second stroke. Respirations 28 in the minute. He has slight cough; bowels natural; tongue not much furred; very little headache.

Pulv. Colchici, gr. iv. 6tis horis superbendo Haust. Magnes. c. Mag. Sulph.

March 24th.—Rested moderately well. The only remaining pain is trifling, and in the left shoulder. Pulse 104, more natural; respirations 22, free; heart's impulse decidedly less forcible and diffused; no alvine evacuation.

Pergat.

25th.—No alteration. Pulse 100, softer; bowels not open. A dose or two of colchicum has been accidentally omitted.

Haust. Sennæ st. et Pergat.

26th.—Bowels well opened. Rheumatic pain all gone. The heart's-beat more limited, and the bellows-sound fainter. Pulse 92, softer.

Pergat.

Towards evening the pulse sunk still lower—to 60; and, as he was labouring under some affection of the heart, it was not considered prudent to push the colchicum further: it was accordingly discontinued. On the following day the patient was sitting up, and felt altogether so well, the palpitations of the heart disturbing him but little, and his appetite far exceeding the bounds of hospital diet, that he would remain in the house no longer, but left us of his own accord on the 30th.

REMARKS, &c.—The sum and substance of what has been already said by various writers respecting the treatment of rheumatism, has, I believe, pretty well established the fact that colchicum is its best remedy; and I think the above

cases (only a portion of those similarly treated by Dr. Addison in our clinical ward) afford proofs of the powers of the drug, such as are seldom witnessed from the exhibition of any of its artificial preparations. When administered as above described, in doses proportioned to the age and strength of the patient, it for the most part exercises an influence on the system at once marked, decided, and beneficial. After four or five doses have been taken this influence begins to shew itself: the pulse, which was before hard and frequent, diminishes in number very remarkably; it becomes at the same time softer and more expanded, and there is a hesitation in its beat truly characteristic. The pulse, in fact, resembles much that of oppression of the brain in its slowness and hesitation, but has none of its hardness. With this there is a sense of vertigo and dizziness, especially when the patient attempts to sit up. The pupils are sometimes dilated; there is occasionally, but not always, nausea; and the patient complains of uneasy griping sensations in the abdomen, which are chiefly referred to the hypogastric region, and always aggravated during the act of either of the evacuations. The stools are for the most part characteristic; they are of a peculiar loose, yellow nature, such as are seldom, I believe, seen under other circumstances.

In proportion as these symptoms indicate the influence of the colchicum on the system, the rheumatic pain becomes diminished, the swelling and inflammation subside, and in very brief space of time indeed (as evidenced by the above related cases), the disease is at an end. The remedy being now discontinued, all its symptoms gradually decline, leaving the patient quite convalescent, and with a good appetite. But this remedy is by no means infallible.

When administered so as to make the impression on the system above detailed, and when the number of stools procured by its combination with the magnesia and salts does not exceed three or four daily, a rapid improvement takes place; but there are individuals who cannot be placed under this favourable influence. The exceptions to which I allude consist of those cases where the mucous membrane of the bowels is so irritable, that sufficient doses of colchicum cannot be administered without in-

ducing excessive purging; and it has been found in our clinical ward, that when such purging takes place, the system manifests none of the symptoms above mentioned, as indicative of the influence of the medicine. In such cases it would appear as if it expended its whole powers on the bowels, and became removed from the body by the operation of purging, before it had time to affect the general nervous and vascular systems in the peculiar manner on which seems to depend its favourable operation.

These exceptions, however, constitute only a minority; and I know of no rule by which they may *a priori* be known. Dr. Addison gave the colchicum in nearly every case of acute rheumatism indiscriminately; if purging supervened, he found no difficulty in arresting it by means of Dover's powder, &c. and in continuing the treatment accordingly by other remedies.

In very chronic, and in mercurial and syphilitic rheumatism, the colchicum as here recommended has not been successful, hypercatharsis being in some instances induced, and in others the remedy failing, even when symptoms have clearly indicated its impression on the system; but in the more acute cases we have had the opportunity of treating, except where the bowels have been too irritable to bear the remedy, we have not had a single instance of failure.

P.S.—I would take this occasion to state, that after finding so successful a result to follow the exhibition of colchicum in this way in acute rheumatism, Dr. Addison gave it in several of those obstinate neuralgic abdominal pains, that constitute so great a proportion of female suffering; and though in general the individuals who are the subjects of such complaints were too irritable to bear it, yet we have had two or three cases where it seemed to have undoubted good effect. Dr. A. has not tried it in a sufficient number of cases whereon to found any decided opinion; he is, however, inclined to think favourably of it, and purposes giving it a fair trial, the result of which may possibly at some future period be communicated to you.

COLLEGE OF SURGEONS.

To the Editor of the London Medical Gazette.

*Pudet hæc opprobria, I freely must tell ye,
Et dicti potulasse et non potulasse refelli.*

SIR,

As in the late discussion on the College of Surgeons you have steered an honourable and independent course, between the Scylla of a blind partiality on the one hand, and Charybdis of unjust and unmeasured vituperation on the other, I am induced to hope that the following observations—made more in sorrow than in anger—on one of the evils of the present system, will not be inadmissible in your journal, nor be found to exceed the bounds of that temperate reprehension which has characterized its pages. The evil I allude to is, the exclusion of students and the medical public from the examination of candidates. Public examination has so much to recommend it, on the score of justice, and the advantages resulting from its adoption in our universities are so great, that I must beg leave to say a few words on it.

It is notorious that the publicity of the proceedings in courts of law is one of the best securities for the administration of even-handed justice; it is an acknowledged principle. Let us then consider the examination as a trial; it will then appear to be a trial not only before self-elected and irresponsible judges, but to be conducted under circumstances of secrecy that increase that irresponsibility to an extent neither favourable to the equity of the court nor the safety of the accused. I do not intend to cast any imputation on the way these judicial functions are exercised, nor do I wish even to insinuate that an improper partiality is ever shown, but I am desirous of proving that there exists no security for that justice. Solon was not one of the wise men when he made no law against parricide.

Let us now turn to our universities, for there is an exact parallel between the cases. There the examinations are public, in the face of day, and I am convinced, by an acquaintance with one of the learned sisters, that to this publicity of the proceedings, and to the invincible sensibility of man to the opinion of his fellows, we owe it, not only that

personal animosity is so seldom able to cause the rejection of a candidate, unless his own deficiency give some colour of justice to his condemnation, but, what is more than all, to this publicity we owe that increase in the standard of qualification which has obliterated an ancient stigma*, and that regard of the schools to their own dignity, which causes them to elect, as examiners, men in the vigour of their minds and maturity of their acquirements. The examinations being public, there arises on the part of the court, a necessity to appear with dignity—to enforce respect; on the part of the candidate, an honourable ambition to distinguish himself before his equals and his friends. His desires are not bounded, as they would be before a secret tribunal, by the mean hope of “scraping through”—of being equivocally felicitated on his *success*; no, he aspires to reach the goal with glowing wheels and loosened reins. Thus, as those who have talents are excited to exert them to the utmost, there always remains on record among the students, the brilliant display which some more gifted candidate has made, which, like the trophies of Miltiades, will not let the young hero sleep; and the standard of qualification becomes progressively raised by the fact of their having such high examples of what candidates can achieve, remaining to influence, by the contrast, the judgment of the examiners. If the examination is private, this incentive is lost,—there only remains a desire of attaining a diploma on the easiest possible terms, and the court itself remains in ignorance of how much may be fairly expected as a proof of diligence and competent abilities. Nor are these all the good effects to be expected from this admission of the public to examinations. It is an acknowledged evil that the examiners are elected for life, and might consequently hold office “when desire has outlived performance;” but this single change would countervail all the evils of that enactment, because it would nullify it.

I am the more urgent that this evil should be amended, because it is the only one almost that affects the whole body. Some grievances complained of concern residents in London only; this concerns “the general camp, pioneers and all;”

besides, it has, as I have endeavoured to show, a torpifying effect on the ambition of the student, and the acquisition of knowledge.

Perhaps I may be permitted, in conclusion, to make a few remarks on the *policy* of making some changes in the system on which the College is governed. I would then suggest whether the passing of a certain bill in the next parliament, and the probable results of its effects on public opinion, the manifest increase of liberality, and all the other political signs of the times, do not render some liberalization of our institutions absolutely necessary. For there is an invariable sympathy between the form of government in a state and its public institutions; nay more, the distant recesses of private society are influenced by the changes of the state, as the shallowest tributary stream is moved by the tides and storms that sway the ocean.

Admitting, then, this sympathy, we may estimate how far the College of Surgeons is in harmony with the spirit of liberality that is abroad, and how great is the necessity of a timely reform. It appears to me that the difference between the College of Surgeons and the *Collegium Wakkleyanum*, as regards the state of public politics, lies in this,—that the one is an oligarchical institution in a free government; and the other, a republican institution in a monarchy. The one is too much behind, the other too much in advance, of the present standard of liberality. But as that standard itself is on the march,

— “and like the Pontick sea,
Whose icy current and compulsive flow
Ne’er fails retiring ebb, but keeps due on
To the Propontick and the Hellespont,”

it is not improbable that it may, in time, advance to the one; to the other, it is impossible it should return. It is true there is no apprehension that such a thing should happen now, both on account of the character of the persons engaged in that scheme, and because the public are not prepared to demand so much liberty in their institutions. But I cannot shut my eyes to what reason shows me may be the result, if no change takes place in the College commensurate with the progress of the public mind, and if, at a future time, some plan of fair and moderate liberty be offered to the world under the auspices of men of honour and reputation.

* It used to be said, that it would be impossible to assign the minimum of knowledge which would ensure success in the schools.

But how trifling are the changes which are necessary to render that edifice a temple where men of exalted and liberal minds would be proud to enrol their names and profess their worship: like the palace of him of the wonderful lamp, there is one window unfinished; let us, then, labour to repair and beautify it, and not cause evil men to attempt to destroy it, that they might rebuild out of its ruins a house to the Dagon of their idolatry: let us make timely changes to retain and secure the attachment of its members, lest at some future time that desertion should happen, and cause us to lament our blindness to the handwriting on the wall, when it makes the "gleaning of the grapes of Ephraim larger than the vintage of Abiezer."

I am, sir,

Yours most respectfully,
BDELUCLEON.

May 20th, 1831.

COLLEGIUM WAKLEYANUM.

To the Editor of the London Medical Gazette.

SIR,

If you should deem the following remarks, on a subject which at present engages some of the attention of the medical profession, of sufficient importance for publication, you will oblige me by giving them a place in your very valuable journal.

The medical profession have been made acquainted, through the medium of the various medical periodicals, with a scheme for the establishment of a New London Medical College, and meetings of the profession having taken place on the subject, it appears to me necessary that its propriety or impropriety should be discussed; and I hope, that in the remarks which I have to offer on the subject, I shall be excused for leaving abuse out of the question; for I believe, in the majority of instances, when we descend to abuse, all further argument ceases. It is measures, not men, we have to consider; what their motives may be are nothing to us. Is the project a good or bad one? I shall, then, if you please, discuss this subject under two heads:—Is

a New College of Medicine wanted? If it is required, is the one proposed best calculated to answer the purpose?

First, is a New College of Medicine wanted? In considering this question, I would wish to call your particular attention to the following conclusion of one of the principal supporters of the New College: that "it is impossible, in his opinion, to remedy the defects of the present system by any alteration in it; no step that could be taken, but that of forming a New College, could be efficient." Now let us inquire into the arguments in support of this conclusion? and first, in reference to the College of Physicians. The prime mover of this New College affair states, and with all the gravity imaginable, "the charter of the College of Physicians was granted to that institution—you will scarcely believe it, when I tell you the fact—in the reign of King Henry the Eighth;" and he goes on further to ask, "whether it be consistent with the present vastly-improved state of knowledge that a charter, which was granted in the reign of Henry VIII., should remain, even to the present hour, in full operation?" Now I would ask anybody with the smallest share of common sense, what can be more silly than all this? as well might he urge that Magna Charta should be dispensed with, because it was granted in the reign of King John. The question is not what king's reign the charter was granted in; and to urge that as a reason for a New College, shews, to my mind, either great stupidity or great ignorance. In regard to whether the College of Physicians requires some reform, that is quite another question, about which very few disinterested persons can be in doubt.

I will now, if you please, consider the College of Surgeons. In reference to this institution I would say that it admits of, and indeed requires, very considerable reform; but because it requires reformation, is no reason that it should be annihilated. It is said that it cannot be reformed; but, I would ask, what can prevent the College of Surgeons from petitioning parliament for such alterations in the present charter as the advanced state of surgical science and the surgical profession call for; and what reasonable man can have a doubt that, supported as it would be by the respectable portion of the profession, every thing in reason would be granted?

I next come to the Apothecaries' Company. Hear what Mr. Wakley says in reference to this body. "The Apothecaries' bill passed the legislature; and what was the effect of it? to throw money into the pockets of the corporation, consisting of the Society of Apothecaries, without producing to the public the slightest benefit whatever." Now, a greater misstatement was never made by man than this. I am sure that every impartial person must have recognised the vast improvements that have been made in medical education by the Apothecaries' Company. But although they have improved the system of medical education, and consequently *benefited the public*, still I think we must all admit that the Apothecaries' act requires alteration; for it is a disgrace to the legislature that quacks, and chemists and druggists, should be allowed to go abroad and practise on his Majesty's subjects with impunity.

A great deal more might be said on this subject, but I am afraid that I have already exhausted your patience; I will therefore conclude this division of my subject by stating, that it does not appear to me that a New College of Medicine is wanted—reform of the old institutions being to my mind much to be preferred.

Secondly, if a New College of Medicine is called for, is the one proposed best calculated to answer the purpose? In considering this part of the subject, it appears to me that the fairest way will be for me to analyze the scheme of government for the New College. If it would not be occupying too much of the space of your valuable journal, I would examine the whole scheme; but, as I am afraid I have already trespassed too far, I will only examine some of the principal parts of it, and that as briefly as possible.

It is proposed, then, to grant a diploma to all legally qualified medical men, without an examination. Now, I would ask, who are the medical gentlemen now legally qualified to practise? Why, not only regularly-educated physicians, surgeons, and apothecaries, but according to Mr. Wakley, chemists and druggists also; for if any one will take the trouble of examining the pages of the *Lancet*, they will find it stated over and over again, that there is no law to prevent chemists and druggists from practising. I suppose, therefore, they

will be entitled to the New College diploma: only think of "*Doctor —, Chemist and Druggist*," in gold letters over the shop door; and as in the many instances in the country they happen to be *oilmen* and *grocers* also, we shall have these gentlemen assuming the title of Doctors of Medicine. It may be said, however, that the diploma will not be granted to these people; but if those are to be admitted who were in practice previous to the year 1815, and who never have undergone any examination, they cannot possibly be excluded, so that the College would have hosts of middle-aged chemists and druggists, oilmen and grocers, presenting themselves as candidates for the diploma, stating that they were in practice previous to the passing of the Apothecaries' act: and who could deny it? I am sure it must be evident to any one who gives the subject the least consideration, that if there were nothing else amiss in the scheme but this, it would be quite sufficient to give the death-blow to it. But further, it is stated that candidates will not be required to produce any certificates whatsoever—an examination being considered quite sufficient: even a certificate of hospital practice is not required. I am sure it is not necessary to occupy the pages of your journal with arguments proving the complete absurdity of this; we should then, most assuredly, have the public killed wholesale, and, instead of requiring two coroners for Middlesex, we should require twenty: we should have men who, perhaps a few months before, had been tinkers or tailors, and having failed, had entered to some grinder for a few months, and dissected a subject, perhaps, applying for diplomas, and passing most excellent examinations.

As far as regards the Collegiate Fund, I think the proposition a good one, and hope to see one attached to each of the medical corporations, for it would be attended with immense advantage to the profession. A great deal more might be urged in opposition to this scheme, but I think enough has been stated to prove its injurious tendency; I will therefore conclude by observing, that I am a decided friend to reform, but not revolution.

I am, sir,

Your most obedient servant,
A MEMBER OF THE PROFESSION.

London, May 10, 1831.

A FEW REMARKS ON THE CONSTITUTIONAL MANAGEMENT OF CONFLUENT SMALL-POX.

To the Editor of the London Medical Gazette.

SIR,

IF the conclusions which I have drawn from the effects observed on treating the small-pox locally with calamine be correct, it necessarily follows that the general plan of constitutional management must be materially altered. By characterizing the disturbance in the system as fever, we are naturally led to the employment of remedies that are little calculated to relieve a state of constitutional irritation—opium to procure ease, ammonia to support the powers of the system, even bark after a short interval become our resources, with an appropriate plan of nourishment, all adapted to meet the exigencies of the case; I am induced to suppose any other mode of treatment would lead to a continuance of that ruffled state of constitution occasioned by the shock which the disease has communicated to the nervous system, and assist in deceiving us in regard to the existence of fever; I can imagine that even the daily action of a purgative, after the ninth or tenth day, would produce a rapid and irregular circulation, with all its consequent distress; for, it appears to me, that it is at this time we are more particularly called upon to restore, and not to detract from, the reduced powers of the system: bark, wine, brandy, &c. were daily administered at this period in both the cases which I have related to you; and in the instance of the man, a purgative, composed of the tartrate of potash, senna, and rhubarb, produced such abdominal distention, and general distress, as required nearly half a pint of brandy to relieve him from, and no purgative effect produced: eight grains of rhubarb were then added to his cordial bark mixture, which was consumed daily, with the effect of producing one evacuation. It seems almost natural to us to be tenacious of our own opinions, and perhaps not always so in proportion to their value. I acknowledge the possession of my share of human frailty in believing that those who advocate a different system will, to use the words of Sydenham, “find themselves as much

in the wrong as an old woman would be, who, to make her pot boil more gently, should make a larger fire underneath.” It is impossible to be offended with any thing that Sydenham says!

I am, sir,
Your obedient servant,
HENRY GEORGE.

Phillimore-Place, Kensington,
May 23, 1831.

ON A
NEW PROCESS FOR PREPARING
MEDICINAL
PRUSSIC ACID.

BY MR. THOMAS CLARK.

HITHERTO no process for making prussic acid (otherwise called hydrocyanic acid) has been devised so simple, as to be used by apothecaries. Hence the preparation of it has fallen into the hands of manufacturers, whom the practitioner justly regards as too irresponsible to be relied upon in producing, of uniform strength, a medicine so powerful in its operation, so sudden, and so transient. The practitioner, owing to this distrust, as well perhaps as to the dearness of the medicine, has too little availed himself of its powers. It is to remove these hindrances, by enabling every apothecary to make prussic acid easily and cheaply, and of uniform strength, that I venture to publish the following process:—

“Take of—Tartaric acid ... 72 grains.
Cyanide of potassium... 32 do.
Distilled water ... an ounce.

In an ounce phial, furnished with a cork or stopper, which should, by previous examination, be ascertained to be sufficient, dissolve the tartaric acid in the water. Then add the cyanide of potassium, and immediately thereafter insert the cork or stopper, which for a little must be preserved firmly in its situation by the finger. Meanwhile agitate, keeping the phial immersed in a basin of cold water, in order to repress the heat produced in the process. When all action has ceased, set the phial aside in a cool and dark place for twelve hours, in order that the cream of tartar formed may subside. Afterwards decant the liquor, which preserve in a phial in a cool and dark place.”

274 MR. CLARK'S NEW PROCESS FOR PREPARING PRUSSIC ACID.

Those who are accustomed to chemical calculations, will easily perceive that the following result ensues:—

We employ

Tartaric acid	72 grains.
Cyanide of potassium ...	32 do.
	104 grains.

These produce

Cream of tartar	91 grains.
Hydrocyanic acid.....	13 do.
	104 grains.

But an ounce of water dissolves no more than about five grains of cream of tartar; and its soluble power is likely to be diminished by the presence of hydrocyanic acid. Therefore all the cream of tartar formed, except five grains—that is, 86 grains—will subside; and the water will hold in solution, besides those five grains of cream of tartar, 13 grains of hydrocyanic acid. But this solution will contain about 26 full doses (we will say 25) of hydrocyanic acid. Of cream of tartar, therefore, each dose will contain only $\frac{1}{5}$, or one-fifth of a grain. The presence of this small quantity of cream of tartar would be regarded as an impurity by chemists, who would separate it by distillation. But little regard will the physician give to the presence of cream of tartar, amounting to the fifth of a grain in a dose. In employing prussic acid, indeed, the objects of the chemist and of the physician are altogether different. Purity is the desire of the chemist; uniformity of strength that of the physician. A disregard of this difference has too often in pharmaceutical processes caused chemical purity to be dearly purchased at the expense of medicinal uniformity.

In the above process, provided we retain the same quantities of tartaric acid and of cyanide of potassium, it is plain that, by varying the water, we may obtain a solution of prussic acid of any given strength. The above formula is adapted to the strength suggested by Vauquelin, namely, water one ounce, to the prussic acid which may be obtained from one drachm of cyanide of mercury; for this yields the same quantity of that acid as 32 grains of cyanide of potassium. This strength of Vauquelin is that most generally in use in this country; and it has been adopted in the last edition of the Dublin Pharma-

copœia. Magendie's solution of prussic acid is about four times as strong.

In the common processes for preparing prussic acid, one great cause of the various strengths produced by those processes, is the great volatility of prussic acid. To be aware of the great risk of loss by this volatility, put a drop of a solution of pure hydrocyanic acid on a bit of litmus paper. This paper will be immediately reddened, as by any other acid; but, so very volatile is this acid, that the redness will vanish in two or three minutes, ere the drop has visibly diminished in size. But the solution will be affected in its strength by this volatility of the acid, not merely according to the manner in which it is prepared, but also according to the manner in which it is preserved. Here, the volatility being too little feared, is too little guarded against. I would enforce, therefore, great care as to the sufficiency of the cork or stopper; and the precaution of inverting the phial is worthy of adoption. The farther precautions of excluding light and avoiding heat are necessary to prevent a spontaneous decomposition, which prussic acid sometimes undergoes.

In performing the foregoing process, the only obstacle at first will be in obtaining cyanide of potassium, which, though it is not at present in the hands of apothecaries, will come to be supplied by manufacturers as soon as that process is generally adopted. Meanwhile it may not be superfluous to explain how this substance may be obtained.

There is a beautifully crystallized yellow salt, formerly called by chemists, and still called in commerce, prussiate of potash, and now very well known, because it is much used in dying blues. This salt is made by burning horn shavings with carbonate of potash in an iron pot. The manufacture of it was first introduced into this country by Mr. Macintosh, by whom it is still conducted on the large scale at Campsie, in this neighbourhood. The nature of this salt long puzzled chemists; and the analysis of it, which has been effected of late years, is one of the greatest triumphs of the analytic skill of modern chemists. An ounce of eight drachms has been shewn to consist of—

Water	1 drachm
Cyanide of iron.....	2 do.
Cyanide of potassium	5 do.

And in the whole ounce, the cyanogen, which is very nearly three drachms, is so divided between the iron and the potassium, that one of those drachms is in combination with the iron, and two of them with the potassium. The name now given to this salt by chemists is the cyanide of potassium and iron.

Now the object of the process which follows, is to get quit, first of the water, and next of the cyanide of iron; so as to obtain the cyanide of potassium by itself.

To get quit of the water we have only to pound the salt and expose it to a moderate heat. The salt, however, being very tough, is troublesome to pound; and, therefore, if we have a large quantity, we may be content with a rough pounding at first; but after exposure to heat, thus roughly pounded, it should be again finely pounded, which it may then easily be, for, by being partially dried, it becomes much more brittle.—After this second pounding we must expose to heat again. The object of all this trouble is to get quit entirely of the water without using a strong heat, which might prematurely decompose the salt. Thus for every ounce we get seven drachms of a dry white powder.

Now, out of every seven drachms which remain, two are cyanide of iron, and five are cyanide of potassium; and these two cyanides are very different, in this respect—that if exposed to heat the cyanide of iron is entirely decomposed, but not so the cyanide of potassium, at least in close vessels: I say, in close vessels, because if the cyanide of potassium were strongly heated in contact with oxygen or with steam, it also would be liable to decomposition. Therefore put the dried powder (to the extent of 40 or 80 ounces, if you choose), into a wrought-iron bottle, such as apothecaries get mercury in. This bottle must be furnished with an iron tube, which must screw into the bottle, in the place of its iron screw-stopper. This tube should also be bent in a curve at a few inches from the bottle, so that while the bottle is perpendicular the straight part of the tube may be horizontal; and to the open end of this tube one more flexible must be joined, so that the open end of the latter may be immersed in a cup of water. Now-a-days nobody can have any difficulty in getting such tubes; for the people who fit up gas-pipes have them in abundance.

The iron bottle, thus filled and thus furnished, is to be put on a smart fire, and to be kept there so long as gas is evolved. Cyanide of potassium remains intermixed with iron and charcoal, resulting from the decomposed cyanide of iron. We dissolve out the cyanide of potassium by water; we filter; we concentrate by evaporation; we set aside for crystallization; we concentrate again the mother liquor; and thus continue till we entirely separate the cyanide of potassium. This salt being deliquescent, is to be dried at a gentle heat, and to be kept in bottles well corked.

If the cyanide of iron should not be entirely decomposed, we shall get in our first crop of crystals some common prussiate of potash, which may be easily distinguished as well by its colour as by its shape. Of course these yellow crystals are to be rejected.

The wholesale price of prussiate of potash is just twopence an ounce avoirdupois. Tartaric acid is still cheaper. Hence, the materials for preparing an ounce of medicinal prussic acid, according to the preceding process, will cost less than a penny; whereas, at present, it cannot be bought at less than a shilling*.

CASE OF COLICA CONSTIPATA

Removed by Inflation.

By JOHN KING, Jun. Surgeon†.

THE importance of inflation as a remedy for obstruction of the bowels, appears to me not to be sufficiently appreciated at the present day. It was first recommended by Hippocrates for the removal of intestinal obstruction; in more modern times, it has been resorted to by Hoffman and Haller; and notwithstanding the neglect it has since experienced, I cannot but regard it as worthy of an eminent position in the list of therapeutic agents. The treatment usually prescribed in cases of ileus or colica (without inflammation) is very discordant, as witness,—warm baths, fomentations, injections of warm water and oil, rubefacients, and blisters,—contra—cold effusion and immersion, freezing lotions,

* Glasgow Medical Journal.

† Ibid.

pounded ice and snow; not to mention emetics, purgatives, and mechanical distention by warm fluids, quicksilver, gold and silver balls, &c.—and when all these remedies have failed, blood-letting, tobacco, in infusion and smoke, and lastly, gastrotomy. Yet this simple means of inflation, although probably the most powerful, and the least dangerous, is entirely overlooked. It paralyzes, as it were, the constricted fibres of the bowels, and may be used in the following cases, if not with complete success, at least with advantage, viz. the various kinds of colic proceeding from torpidity, spasmodic constriction, viscid meconium in new-born infants, impaction, bezoards, and other intestinal concretions, volvulus or intussusceptio, and some cases of hernia. It was a happy thought of those who hit upon this means in the hour of danger, after all their other efforts had proved nugatory. For although tobacco, which is often used as a last resort, sometimes is successful, it is not uniformly so, and it too often happens that the patient, rather than undergo a repetition of it, beseeches to be allowed “to die in peace.” We may also observe the hesitation with which the practitioner has recourse to it, not only because of its doubtful efficacy, but on account of the danger there is of greater exhaustion being produced by it. I take the liberty of giving one case, as I conceive it may give some idea of the power of inflation.

In September, 1839, I was requested to visit Mrs. G. æt. 26, of rather delicate frame. On the night previous to my visit, she experienced an uneasy sensation in the region of the stomach, for which she took eight grains of calomel combined with a half-drachm of compound powder of jalap, without any impression on the bowels. During the night this uneasiness increased to an almost intolerable pain, accompanied with obstinate vomiting, which continued till the evening, when I saw her. In the course of the day she took two doses of castor oil, and received five injections. When I entered the apartment, she was sitting near the fire, and her body bent forward; the face was wan, hollow, dejected, and of a dingy yellow colour; the surface of body and extremities inclining to cold. Pulse 80, soft, and much compressed—tongue, at

the back part, covered with a brownish coloured mucus—she had obtained no alvine solution for six days. She took no notice of my being present, or of any thing going on around her, but informed me, when questioned as to the seat and kind of pain, that it was of “a violent screwing nature, working between the stomach and navel,”—coming on in paroxysms, and ending in, or producing vomiting. I ordered the warm bath, and gave a teaspoonful of laudanum with compound spirit of lavender, which was soon afterwards vomited. Upon this, an effervescing mixture was given, then five drops of croton oil with some laudanum, and in about three quarters of an hour, five drops more without laudanum: but each in its turn was rejected, with a quantity of yellow-coloured fluid. It was at this time I first thought of inflation. For this purpose I procured a pair of common bellows, and securing the bladder of a glyster bag to the nozzle of the bellows, the pipe was introduced into the rectum, while the patient lay on her right side, and the bellows was commenced being wrought. As soon as the air entered the rectum, the effect was immediate and satisfactory; the countenance lost its anxiety, the eye brightened, and the patient said she felt quite relieved. A gurgling noise was heard in the bowel, with an escape of foetid air; and in about a minute from the time the air began to enter the rectum, she requested to be allowed to go to stool. She had a copious defecation and a good night's rest; and next morning complained only of being much enfeebled, but was otherwise well.

I was deeply impressed, about five years ago, with the fatal result of a case of intussusceptio, in a fine robust infant, six months old; which was supposed to proceed from the effects of half a teaspoonful of some syrup of poppy, made, as is commonly done, with opium, given for the purpose of procuring sleep during the period of teething. About eight hours after it was given, the child began to cry vehemently, having appeared restless and uneasy for several hours previously. Early in the forenoon it passed a very scanty stool, streaked with blood; soon after this, vomiting commenced, which continued until the little sufferer sank. Is it unreasonable to imagine that if inflation

had been used in this case, the result would have been otherwise? I was hereby shown the necessity of seeking more powerful means than fluid injections, &c. And I hope, as I firmly believe, that inflation with common air is the necessary desideratum. I conclude with Dr. Cheyne, that "a man dying of ileus presents one of the most pitiable sights in nature; and a leading object of this paper is to remove a part of the horrors of the scene, by withholding many of the bitter doses which are forced upon him by the solicitude of his friends and the officiousness of his physician."

Irvine, 18th Dec. 1830.

ŒSOPHAGOTOMY IN THE HORSE.

By J. P. CHEETHAM,
Veterinary Surgeon.

On the 9th of August I was called to attend a bay mare, at the Horse Barracks, the property of an officer of the 4th Dragoon Guards. When I entered her loose box I found her discharging masticated food by the nose; and I perceived on the right side of the neck, in the situation of the œsophagus, a swelling the size of my arm, commencing about six inches below the pharynx, and gradually increasing in size until it reached the sixth cervical vertebra, where it terminated abruptly.

From the history of the case it would appear that there had been a partial obstruction offered to the passage of the food ever since she had been purchased, which had been progressively increasing for a period of about nine months. On several occasions of late the œsophagus had become so obstructed that it was necessary, in order to remove the contents, to wash these down with water; in other instances, a probang was used. Last spring a blister was applied over the diseased part, and she was afterwards turned out to grass.

While at grass it was observed that the food, when it happened to lodge in the lower part of the dilatation, was frequently passed up towards the mouth, and again returned towards the stomach. This action went on, in many instances, till the food, as it were, accidentally passed on to the stomach.

She was taken from grass on the 6th of August, and on the following day was given a considerable allowance of corn, in order to ascertain if she had recovered from the disease. An accumulation of the food, as formerly, was the result; and the means formerly used having been tried without effect, I was sent for, and finding by the previous history that a permanent stricture existed, I resolved to perform the following operation. Having had her cast on her right side, I made an incision opposite the sixth cervical vertebra into the œsophagus, about four inches in length, the knife passing between the levator humeri and the vessels and nerves (namely, the jugular vein, carotid artery, and par vagum): on opening the œsophagus, it seemingly was divested of its muscular fibres, the cuticular coat being the principal part that here composed the tube. Having exposed part of the masticated food which it contained, it was, from its density, removed with some difficulty, and she was afterwards given a little warm water, to wash out the œsophagus.

The dimensions of the dilated portion I could not correctly ascertain, but its inferior part I imagined, when distended, to be three or four inches in diameter. On examining the cyst, I found the tube so much contracted at the opening downwards, that it would only admit a probang half an inch in diameter to pass, and that not without rotatory motion and some degree of force. After withdrawing the probang, she was allowed to get to her feet; she then drank freely of warm water, which, by applying pressure on the wound, passed on to the stomach without interruption. But when the pressure was removed the greater quantity passed out by the wound; her pulse, which at first was 65, having risen to 75 after the operation, I abstracted from the jugular vein five quarts of blood, administered a laxative drench, and I left her at five P.M. At nine P.M. I again visited her, and found the pulse 90; the wound in a foul-like state, an ichorous discharge, with an offensive smell; fomentations of tepid water were then applied to the parts all night, and a solution of the chloride of lime injected into the wound every half hour. In the course of two hours she was much relieved, pulse fallen to 80; she took freely of gruel through the night, and by four next morning the

wound had lost the offensive smell, the discharge much less, pulse 75. I now left her, a poultice having been applied over the wound. At eleven A.M. the symptoms much the same; the wound was bathed with tepid water, and a fresh poultice applied. In the evening, pulse 65, at which it continued for two days. With the wound similar treatment was pursued; her regimen was gruel, mashies of bran, and a decoction of linseed of a thin consistence.

On the 12th a sloughing in the wound commenced, extending to the œsophagus, part of which was detached in a week, when the wound assumed a healthy condition, and the fever abated. I now introduced a probang of a similar size as that mentioned formerly, through the stricture, and repeated it two and three times a day for ten days, increasing its size gradually.

After the first introduction the probang passed every day more easily, till at length it could be introduced with the greatest facility. By these means the stricture which appeared to have formed where the tube enters the chest, was overcome; but since that time the probang has been occasionally introduced by the owner.

To assist the mare in swallowing, the dilated part is aided in its action by pressure, which is accomplished by means of a collar similar to that of a martingal, with a pad attached to it, and the whole being fixed to the roller by straps properly adjusted, a regular degree of pressure is kept up.

26th Sept.—I now find the dilated portion greatly diminished in caliber, the wound nearly closed; she is lively and in good spirits, taking daily exercise, and eating her regimental allowance of corn and hay.

The mare has now been for a considerable time quite well, is in good condition, and has been frequently hunted since the operation*.

33, Union Place, Glasgow,
30th December, 1830.

* Glasgow Medical Journal.

MEDICAL GAZETTE.

Saturday, May 23, 1831.

*" Licet omnibus, licet etiam mihi, dignitatem Ar-
tis Medicæ tueri; potestas modo veniendi in pub-
licum sit, dicendi periculum non recuse."—Cicero.*

CRIMINAL INFORMATION AGAINST THE RIOTERS—NEW BYE-LAWS OF THE COLLEGE OF SURGEONS.

THE result of the proceedings in the Court of King's Bench on Tuesday and Wednesday, added to some other events of the week, will serve to convince Mr. Wakley and his partizans that they are not to have every thing their own way, and that the laws of the land are not to be violated with such entire freedom from penalty as they seem to have supposed. The rule for leave to file a criminal information has been made absolute against Messrs. Wakley and King—the captain and lieutenant of the crew—while, as regards the others, it has only been discharged on their paying the costs; and these, we understand, will be quite sufficient to fix pretty firmly on their memories their energetic achievements of the 8th of March.

We are satisfied with this result; for the honour of the profession will be as effectually vindicated by the conviction of two, or even of one, as of all; and the including those who certainly acted a very subordinate part, would probably only have served to dilute and weaken the case. But the two against whom the action is to proceed stand on very different grounds, though it appeared that they were most anxious to be included in the act of grace; Wakley, who was present, instructing his counsel to say that "he would abstain from doing any thing of the sort again," if the College were satisfied with Lord Tenterden's decision in their favour, and would suffer the proceedings to drop. It is amusing

'to contrast the crouching humility of the bully, when dragged into a court of justice, and thus crying *peccavi*, with his uproarious threatening and boasting, in those precious moments of maudlin triumph for which the day of reckoning is now at hand.

Of the College of Surgeons we have freely spoken, and shall continue ever so to do. Where we think them right, our humble support shall be theirs: where we think them wrong, we shall never scruple to state our opinions. In the present case, however, there is but one sentiment—there can be but one—among those who have any regard for the character of our profession. A riot, headed by by two such persons as Wakley and King, is not exactly the manner in which, whatever imperfections in the working, or vices in the principle of the College of Surgeons, may exist, are to be remedied. *Reform* is the wish of many—but *revolution* is the desire of the demagogue alone.

With this decision in the King's Bench, the proceedings against the Bow-Street officer fall to the ground, inasmuch as the Court has decided the act of Messrs. Wakley and Co. to have been riotous and illegal; and it was only on the supposition that the contrary was the case, that any doubt could for a moment exist as to the right of the officers to interfere. As we before stated, the assertion in the *Lancet* of the 26th of March, that an action had been instituted by Wakley against Leadbitter, was false. The College, desirous only to have the question of law set at rest, waited till close upon the end of last term, not purposing to act on the offensive had Wakley been as good as his word; but they waited in vain; and at length, seeing that it was intended to let the matter drop, they very properly stepped forward and submitted the points at issue to the decision of the highest court of justice in the kingdom. Then, and not

till then, was the abortive action against the officer really instituted.

Another very important point has been established during the present week—namely, the power of the Council to *expel* those members who violate the laws they have bound themselves by oath to obey. We earnestly recommended that the sanction of the judges necessary for this purpose should be obtained, in order that persons who disgraced the profession of surgery might no longer bear the honourable distinction of possessing the diploma of the College. When we made this suggestion, it was laughed to scorn by our contemporary, who, in the plenitude of his wisdom and his confidence, assured his readers, that though such a thing might have been done in the days of Lord Eldon, it was now impossible—for Henry Brougham sat upon the bench! True, Lord Brougham does so, and he has exercised his high authority by concurring with the other Judges in signing and thus establishing a *new code of bye-laws*, by which, had they previously existed, Wakley, on fifty different occasions, had laid himself open to expulsion, and by which now, he and his *confrères* will be compelled to do, what they never would have done spontaneously—conduct themselves with propriety and decency, or have their names blotted from the list of English surgeons, and the doors of the College shut against them for ever. To young men, deluded by the confident and gasconading assertions of these professional agitators, a knowledge of the circumstance we have just alluded to may serve as a caution against their involving themselves in difficulties which may mar the prospects of their future lives.

The newspaper accounts of the proceedings in the King's Bench are so meagre and unsatisfactory, that we have

declined inserting any of them; but we shall next week be enabled to give a full and accurate report of our own, from the notes of a short-hand writer employed for the purpose. The speech of the Attorney-General was particularly brilliant and impressive. The learned gentleman, in conclusion, promised and pledged himself, on the approaching trial, to prove Wakley to be "a libeller, a rioter, and a conspirator."

LONDON UNIVERSITY.

In giving insertion to the sketch of the ceremony of distributing the prizes at the London University, which will be found at page 283, we cannot avoid taking advantage of the opportunity which it affords us of hazarding a few opinions on the circumstances which have, in some degree, clouded the prospects of that institution. That the Council has been unequal to the task which it undertook to perform, is quite obvious. The majority of its members formed an erroneous opinion of their own consequence, and of the nature of their situation, imagining the Professors to be placed at a distance beneath them, which neither their education, information, nor their rank in society authorized; and which indicated a most mistaken view of what was necessary to raise the establishment and secure its permanent hold on the public favour. It was not sufficient that the Council merely elected men of acknowledged celebrity to fill the various chairs, in the branches of science or of literature which they were intended to teach, but its members, each in his station, ought to have taken the Professors by the hand, and lost no opportunity of affording them countenance and support. Had such a liberal feeling towards them been adopted,

much of the ill blood which has rankled in the veins of the Professors, and prevented them from acting with unanimity, would have been avoided, and an *esprit de corps* would have linked them together, for the preservation of their general interest, which finds no substitute in individual efforts to attain isolated respectability. But the time is past for the adoption of such a measure; and the Council can now only retrieve the errors into which it has fallen by yielding up as much of its power as is consistent with the necessity of the case to the Professors, who, having their interests closely interwoven with the prosperity of the Institution, are more likely to steer the vessel aright than those who have only a secondary concern in its safety. No chair, in future, ought to be filled without the opinions of the Professors being consulted; and, if we are not misinformed, it is to a proceeding of this description that the election of Dr. Elliotson is to be ascribed;—an event which forms a redeeming trait amid the successive and, we began to fear, endless blunders which it has been our lot to commemorate.

We shall make no comment on the disturbances, which have left a stain on the class of anatomy this session. We adverted to them at the time of their occurrence, only in the hope of our observations leading to their discontinuance. We conceive, however, in looking at the University in the way in which all things are regarded in this commercial country, that it will be for its best interests to accommodate itself to public opinion; and, if this be at enmity with any professor, however gifted, it will be well to make some sacrifice at least to that verdict on which the sole expectation of support to the institution must rest. It is absurd to talk of the school as an University, or to think of governing

it accordingly; the establishment is such in name only; and until it can boast of a charter, of which it appears, by what fell from the Attorney-General on Saturday last, there is no immediate prospect, it cannot be regarded in any other light than as a great private school, which must bend and submit to the decision of the public. We would humbly suggest to the Council to think of this—to correct the errors in their own body; and not till then to rely on the support of the public.

Nor can we conclude without a word to the professors. Drs. Thomson, Turner, and Elliotson, are unexceptionable as teachers, and their characters without blemish as men; but with regard to Dr. Davis, we say without hesitation, that it is perfectly disgraceful to see a person holding a public situation in such an establishment so lost to all sense of what is due to himself, to his employers, and to his pupils, as to associate himself, in the unblushing manner which he has done, with some of the most notorious characters in the profession, and openly to join the standard of a band of agitators—the scorn and contempt of all thinking men. The Council have sometimes been arbitrary enough towards the professors; let them, in this instance, exercise their authority, by peremptorily prohibiting Dr. Davis from setting such an example, and, for once, the public voice will echo their sentiments, and admit the wisdom of their interposition.

QUACK PATRONAGE—A TRIPLE ALLIANCE.

THE Editor of the Literary Gazette, in his number of Saturday last, noticing some new quack-trash by his protégée of Harley-Street, waxes witty with the profession, prognosticates “a battle of

the gallipots,” and, we suppose with intention to stir up the *mêlée*, “throws a *Jerdan* at the heads*” of all who oppose his favourite practitioner. But the Editor is evidently more zealous as a patron than sagacious as a prophet. He will, we fear, be disappointed in his expected “battle.” The convicted felon is a combatant too contemptible to enter the lists withal; albeit he hath the valorous backing of his editorial protector, and “the warm alliance” of a brother practitioner of Ely-Place, who is said, in the notice in question, to be “started from the very bosom of the College of Physicians.” We trust that this phrase may prove, ere long, to be literally true; and that the College, and all other respectable bodies which number him among their members, may, like the Medical Society,

“Cleanse their stuff’d bosoms of such perilous stuff;”

so that there may be no obstruction to the complete and perfect “alliance” of an illustrious pair, “so justly framed and formed by nature.”

CASE OF AMPUTATION AT THE HIP-JOINT, PERFORMED BY M. VELPEAU, At La Pitié Hospital, Paris.

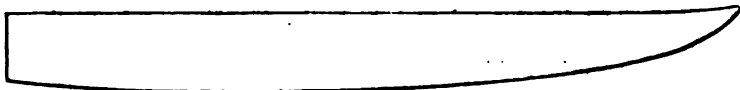
THE subject of this operation is a weak emaciated individual, æt. 26, of scrofulous habit, pallid countenance, and very sickly appearance. About two years since he had fallen upon his left hip, when an abscess formed, which opened, and subsequently healed. Three months after this he had another fall upon the same hip, and another abscess formed above the trochanter major, for which he was admitted into the hospital of La Pitié: the abscess opened, and discharged copiously. The patient remained in the hospital about six months after the second fall. A probe passed readily into the substance of the tro-

* “Dulness hath thrown a *Jerdan* at thy head.”
Southey's Sonnet to Chas. Lamb.

chanter major; no pain on rotating the limb: the matter continued to flow, and his constitution began to suffer materially, when M. Velpeau proposed the operation to him, as the only chance of saving his life; the patient, however, would not consent. The discharge of matter increased in quantity; he became much emaciated, with constant diarrhoea; but would still not submit to the operation, till within a few days back, when he saw the helplessness of his condition, and consented. M. Velpeau decided upon performing the operation,

though the circumstances were very different from those under which it was proposed.

Operation.—The patient (a tall man) was placed rather inclining on his right side, the nates being made to rest upon the edge of the lower end of the operating table; the operator stood on the outside of the left leg, and an assistant compressed with his thumb the femoral artery, as it passed over the pubes. The whole of the operation was performed with a French scalpel of the following dimensions:—



An elliptical incision was made through the skin and integuments of the back part of the thigh or buttock, commencing from a point about three inches above the trochanter major, and two inches behind the anterior superior spine of the ilium, extending with a convexity downwards and outwards to two inches below the ramus of the ischium, on the inside of the thigh; a corresponding incision was made over the front of the thigh, meeting the first at its two extremities: thus the ulcerated and diseased soft parts were included in the angle formed by the two incisions, at the outer side of the hip. The skin covering the front of the thigh was then dissected upwards for about three inches, and the flexor muscles of the thigh and capsular ligaments were divided by perpendicular incisions. The operator then depressed the limb, dislocated it outwards, and divided the ligamentum teres; the posterior muscles of the thigh were then cut through, the knife being passed from within outwards, in the line of the first incision.

The femoral artery was immediately secured, and about ten or twelve other vessels. Not above eight ounces of blood were lost during the operation, which was admirably performed. A large quantity of charpie (a hatful) was applied to the stump, which was secured by rollers.

M. Velpeau did not intend to unite the stump by the first intention, and stated that he disapproved of muscular flaps, from their containing so much cellular tissue, and thereby favouring

such profuse suppuration. The skin which was saved was not sufficient to cover the stump, and had union by first intention been attempted, at least two inches of divided muscles would have been left exposed.

Examination of the Limb.—A considerable quantity of unhealthy pus among the muscles surrounding the superior part of the femur. Capsule of the joint perforated. Absorption of cartilages on one point of the head of the bone, of the size of a bean. On making a longitudinal section of the bone, the cancellated structure of its neck, the trochanter major, and about an inch of the shaft below it, was soft, and redder than natural; the cells contained a curdy scrofulous matter;—there were one or two cavities in the bone, below its neck, about the size of small nuts, communicating with the external abscess, and containing the same fluid. M. Velpeau conceived that the perforation of the joint must have taken place within a month, as he rotated the limb at that time without giving any pain. The state of the bone will be well described by the term scrofulous degeneration.

P.S.—The operation was performed on Friday, May 6th; the patient is still living, and no particular symptoms have occurred up to the present day, (Tuesday, May 10th). There was yesterday increase of diarrhoea, which had been somewhat less since the operation. The wound has suppurred well; the patient free from fever.

Paris, May 10, 1851.

DISTRIBUTION OF PRIZES AT THE LONDON UNIVERSITY.

On Saturday, the 21st inst. the medals, obtained by the most assiduous students in the medical school of this establishment, were publicly awarded. The theatre was crowded with members of the profession and others; demonstrating that the interest in these useful exhibitions is still undiminished.

At two o'clock the Council, Warden, Professors, and many distinguished friends of the institution, entered the theatre; and the Attorney-General, Sir Thomas Denman, who presided, took the chair. We observed, amongst the members of the Council, the Duke of Somerset, Mr. Tooke, Mr. Merivale, Mr. Weymouth, Mr. Sturch, Mr. Goldsmid, Mr. Wilson: Mr. Joseph Hume, Mr. William Smith, and several other members of parliament, were amongst the visitors.

The ceremony commenced with the report of the medical professors, which was read by Dr. Davis. It touched lightly upon the disturbances which have occurred in the anatomical class under Mr. Pattison. The professors wisely refrained from offering any opinion on the cause of these irregularities; but they stated, that in all the other classes the greatest decorum and attention, on the part of the pupils, had existed during the whole session. In noticing the vacancies which various circumstances had occasioned in the chairs of the medical school, tributes of well-merited approbation were bestowed upon Mr. Charles Bell and Dr. Conolly; and an elegant and just eulogy was pronounced on the memory of the late Mr. Bennett, whose attainments as a teacher of general anatomy were undoubtedly of no ordinary description. The announcement of the election of Dr. Elliotson as the successor of Dr. Conolly, in the chair of the Nature and Treatment of Diseases; and some laudatory remarks on the manner in which Mr. Richard Quain conducted the concluding part of the course of Mr. Bennett, were most favourably received by the pupils. There can be no doubt that much advantage to the school may be anticipated from the energy of character, and the high acquirements of such men as Dr. Elliotson. Some judicious remarks were made on the disadvantage of long apprenticeships, and the negligence of the legal masters of medical apprentices, in not directing any course of reading, and plan of prefatory studies, for the young men under their care. In alluding to an hospital—that essential appendage of a medical school—the professors pointed out the necessity which exists for such an establishment in the district of the metropolis in which the University is situated, and expressed a reasonable hope that the necessity would soon be so

generally felt, as to lead to the accomplishment of their anticipations on this subject.

In declaring the prizes, each Professor made a few remarks on the character of the essays, or answers, to which they had awarded the medals; and from what was said there seemed to be but one sentiment respecting the improved state of the school. A striking feature of the desire for improvement was obvious in the increased number of medical students who, during this session, have attended the prelections of Dr. Grant, the Professor of Comparative Anatomy and Zoology; a class which is not included among those which the medical student is obliged to attend. Mr. R. Quain, who was the representative of the late Mr. Bennett, pointed out to the meeting the distinction of the department of anatomy taught in the class of general anatomy and that in the class of descriptive anatomy. Many of the students, he said, attached themselves more particularly to one or other of these branches of the sciences; very few, indeed, excelling in both. Thence those who obtained prizes in Mr. Pattison's class were not likely to acquire them in that of general anatomy; and the discrepancy would be thus, he conceived, easily explained.

Dr. Turner, the Professor of Chemistry, stated, that such was the increased anxiety for chemical information, amongst medical students, that the number of those to whom he had adjudged certificates of honour was double that of last year.

Dr. Thomson also, the Professor of *Materia Medica* and *Therapeutics*, bore testimony to the improvement in his class. He drew a comparison between the manner in which his subject is taught in the University and elsewhere, and stated that his great aim has been to lead the student to pursue *materia medica*, not less with a view to the cultivation of science, than for its practical utility in advancing the ultimate object of all his studies—the power of curing diseases. Instead of the student regarding his profession as a trade, and medicines as simple specifics, it was the ambition of the professor to lead him to consider it as the opportunity of practically applying his other elementary acquirements in medical science; and to regard medicines as the working implements, without an accurate knowledge of the nature and application of which, his acquisitions in anatomy, physiology, and pathology, would be little better than ornamental decorations.*

After the prizes were distributed, the Attorney-General concluded the business of the day with an eloquent and impressive address to the pupils. He congratulated the public on the effect which the University had al-

* The learned Professor is quite mistaken if he supposes that *materia medica* is not taught "elsewhere" in the manner he describes.—ED. G.S.

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ready produced on medical education; and the high rank which it was evidently destined to hold among the other seats of learning and science, the reputation of which have been sanctioned by the experience of ages. He regarded its prosperity and permanence as undoubted; and he awakened the attention of the young men educated within its walls to the fact, that it was not on their conduct during the period of their studies only, but on their future career and their character in life, as practitioners and men of science, that the celebrity of their Alma Mater was to be maintained. The high estimation in which the public held the honours which were bestowed on the present occasion, had been already demonstrated by the appointments which have been attained by those who hold them, solely on the reliance that they are most impartially and justly rewarded; and are therefore the best guarantees of the abilities of those on whom they are bestowed. He, the Attorney-General, conceived that a medal, or a certificate of honour, acquired as he knew it to be, was a better passport to public confidence than any title which a degree from a chartered university could bestow. At the same time he admitted the claim of the University to a charter; and he had no doubt that the hopes of the professors on this subject would be realized in due time.

1st Silver medal—Mr. J. N. Hudlestome, of London.

2d do.—Mr. Frederick Edmonds, of Penzance.

Surgery.

Gold medal—Mr. James Long, of Camden-Street.

1st Silver do.—Mr. James Thomson, of Colston Basset, Notts.

2d do.—Mr. David Wm. Nash, of Bristol.

Chemistry.

Gold medal—Mr. David Wm. Nash, of Bristol.

1st Silver do.—Mr. Collings Manger Carré, Guernsey.

2d do.—Mr. Henry Cook, of London.

Physiology.

Gold medal—Mr. Henry Plank, of London.

1st Silver do.—Mr. James Wearne, of St. Ives, Cornwall.

2d do.—Mr. Peter Martin, of Reigate.

Comparative Anatomy.

Gold medal—Mr. Charles Le Mann, of London.

Silver do.—Mr. Robert Garner, of Potteries, Staffordshire.

Botany.

The Prize—Mr. Robert Marsh, of Bath.

NAMES OF THE MEDALISTS.

Midwifery.

Gold medal—Mr. Peter Martin, of Reigate.

1st Silver do.—Mr. Thomas Howitt, of Lancaster.

2d do.—Mr. Peter Hulme Edge, of Salford.

Anatomy.

Gold medal—Mr. James Long, of Camden-Street, Somers Town.

1st Silver do.—Mr. Joseph Thompson, of Colston Basset, Notts.

2d do.—Mr. Richard Wakefield, of Judd-Place, New Road.

General Anatomy.

Gold medal—Mr. Robert Grueber Shute, of London.

1st Silver do.—Mr. John Storrar, of London.

2d do.—Mr. James Long, of Somers Town.

Nature and Treatment of Diseases.

Gold medal—Mr. Thomas Eden, of Liverpool.

1st Silver do.—Mr. Robert Docksey Goodwin, of Ashbourne.

2d do.—Mr. Peter Hulme Edge, of Salford.

Materia Medica.

Gold medal—Mr. David William Nash, of Bristol.

REPORTS OF CASES OCCURRING AT PUBLIC INSTITUTIONS.

HOTEL DIEU.

Amputation of the Neck of the Uterus.

The patient was a widow, of healthy appearance, forty-five years of age; had been married twenty-five years; had had several children, and miscarriages, and had always been subject to difficult and painful parturition. On the 25th of March she came to the hospital, complaining of an ailment, under which she laboured for seventeen months. Regularly before and after her menses she had usually experienced a sensation of fullness about the uterine parts, but never suffered any extraordinary inconvenience except about twenty years ago, when she expelled a *mole*. She now felt great pain in the lumbar region, and along her thighs: there was great heat about the parts of generation, and a very abundant white discharge. On examining the *os tincæ* with the finger, the posterior lip was found gorged, pro-

minent, uneven, and hard; the anterior one less affected; and the orifice itself more widely expanded than in its natural state.

M. Dupuytren, on the third day after her admission, proceeded to operate. The instrument he made use of was *Museux's pincés à airigne*: he used no speculum. The neck of the uterus was readily grasped, and the amputation performed very neatly: all the diseased part was removed, and in it was fully detected afterwards every mark of carcinomatous disorganization.

Three or four days after, the patient began to suffer from retention of urine, with some pain in the epigastrium and pelvis. (*Forty leeches to the hypogastrium.*) Leeches were three several times applied; the pains were thus very successfully relieved, and the diarrhœa which ensued was arrested by means of the white decoction. The patient was now going on very well; there was no hæmorrhage, nor any particular pain, if we except some vague twitches, like rheumatism, which affected her occasionally; but all of a sudden, on the 19th of April, about eleven o'clock at night, she was seized with a difficulty of breathing, and uttered an alarming cry. The house-surgeon, however, was not called up. Next day she was insensible, and lethargic; her lips alone moving with that curious deviation to the left side of the mouth, familiarly known by the name of *smoking a pipe* (*fumer la pipe*). Ordered *twenty leeches to the mastoid apophyses; sinapisms; a purgative lavement; and an emeto-cathartic potion.*

She died on the 21st, at seven in the morning.

Nothing very remarkable was discovered upon opening the body, perhaps with the exception of considerable effusion on the surface of the right posterior lobe (of the cerebrum). The womb was more voluminous and hard than natural, but it was apparently sound. The resection had been very neatly accomplished, and was now just cicatrised. No vestige of disease about the part could be perceived, nor did there seem to be any thing wrong in the pelvis. — *Lancette Française.*

HOPITAL DE LA PITIÉ

Intermittent Fever of the Quartan Type —Attempt at Cure by an Incendiary Potion—Recovery—Pathology of Inter- mittent.

A LABOURER, 28 years of age, was admitted into the hospital on the 27th of March, under the care of M. Louis. The patient was a man of strong constitution, and usually enjoying excellent health; but, about eight months since, being employed in a low and damp locality, in the neighbourhood of Saumur, he was seized, for the first time in his life, with intermittent fever. The accessions generally lasted for three hours, and the complaint assumed the quartan type. The man worked in the intervals at his usual business. By the advice of one of his friends he was induced to try the febrifuge efficacy of *half a (setier) of brandy, in which half an ounce of pepper had been steeped*: and this incendiary draught he actually took at the accession of one of his paroxysms, but without any effect upon the march of the disorder. It produced neither nausea nor vomiting, nor diarrhœa, nor colic, nor any pain whatever in the stomach or bowels. He tried then another reputed remedy: at two different times he took a *chopine* (an English pint) of white wine, in which a large copper coin (a large anus) had been immersed for four-and-twenty hours; but with no better effect. No he made up his mind to go into the hospital of Saumur, and was discharged cured in eight days with *sulphate of quinine*. However he had two successive relapses; the first of which was treated again with *quinine*, and for the second was he now come into the hospital of La Pitié.

On the 19th, the cold fit seized him about four in the afternoon, and lasted till seven. It was attended with severe headache. Then came the hot fit, with copious sweating, which continued during the night; and this was the general course of the disorder. In the intervals of the accessions the patient betrayed no remarkable symptoms; his attitude was natural, his complexion yellowish, his plumpness of the ordinary standard, his pulse calm, no swelling in the region of the spleen, no diarrhœa. He was put on *sulphate of quinine* (twelve grains a-day, divided into three doses),

and, remaining in the hospital till about the middle of April, was discharged completely cured.

M. Louis has collected the histories of an hundred and ten cases of intermittent fever; forty-five of them attended with pain in the region of the spleen during the accessions, whilst nausea and pain in the stomach have not been present in above a tenth part of the number, nor diarrhoea in above a twelfth. During the *clinique* of last year, ten patients, labouring under intermittent, were received into the wards of La Pitié, and, on being questioned particularly, were found in no case to have been affected with either nausea, vomitings, or diarrhoea. Yet M. Louis, with these facts before him, still maintains his opinion that intermittent fever arises from inflammation of the gastro-intestinal apparatus (*phlegmasie gastro-intestinale*).

EDINBURGH INFIRMARY.

Remarkable Case of Sub-acute Peritonitis—Death.

AGNES CONOLLY, *stat.* 20, a servant, admitted March 26th. Headache and pain of back; vertigo upon sitting up; slight pain under the left mamma; cough, stated to be of some months standing, without recent aggravation; frequent chills, alternating with flushings; skin soft; pulse 96, full; tongue white, and furred in centre; thirst and anorexia; countenance natural; bowels reported open. Four days ago had a rigor, followed by present symptoms. Was bled and had an emetic yesterday. Was lately visiting some persons labouring under fever.

Sumat Infusi Cathartici, *℥iv*.

27th.—Several dark-coloured stools; countenance nearly natural; headache and pain of back. Pulse 112, moderately full and firm; respiration, 38; complains much of pain under left mamma, not aggravated by pressure, and slightly by full inspiration; the *râle sous-crépissant* is distinct there; natural respiration over the rest of the chest; pretty frequent cough, exciting little pain; expectoration mucous, frothy without tinge. Tongue rather florid, slightly furred. No cough from full inspiration.

Fiat. V. S. Sumat. Solut. Tart. Antim. *℥ss*. ad nauseam sustinendam. Lateri dolenti applic. vesicator. Rep. Haust. Cathartic.

28th.—Syncope and sweating after *℥iv*. of blood had been removed, but no change

upon symptoms; bleeding repeated in the evening to *℥iii*. causing much nausea; blood natural; headache occasionally returns; pain of side and back easier. Pulse 112, firm, though she still complains of nausea; respirations 28, heaving. Tongue partially furred; yellow frequent stools. Blister rose well; slept well, and was free from pain in the night. Had an opiate draught. Occasional vomiting. Sputa mucopurulent. Says she has dyspnoea occasionally, when otherwise in perfect health, and that she is subject to palpitations.

Contin. Solut. Antimon. et Haust. h. a.

29th.—Much nausea, no vomiting; giddiness; pain of side slight, and only occasional, not excited by coughing or full inspiration. Pulse 116, moderately firm. Tongue, lips, and teeth, encrusted. Skin of moderate warmth; slight mucous and sonorous râles in left side of chest; expectoration free; sputa as before; less cough; respirations 28.

Omit. Solut. Antim. Contin. Haust. h. a. et Infus. Cathartic.

30th, eighth of disease.—Restless and incoherent in the night. Cathartic draught taken at five this morning; shortly after, one scanty stool, containing some blood; three or four stools at considerable intervals, containing more or less blood, and within the last twenty minutes the discharge has been profuse, with great languor, pale countenance, and feeble pulse; skin of natural temperature.

Injic. quamprimum Enema ex aqua frigida, *℥iv*. et Tinct. Opii, *℥iss*. Post horam unam hæmorrhagiâ perstante injic. Enema ex Decoct. Quercus, *℥iv*. Tr. Opii, *℥j*. Acetat. Plumbi, *gr. iv*. Sumat subinde, *gtt. x*. Acid. Sulph. Dilut. ex aqua frigida. Vinum pro re nata.

31st.—Injection almost immediately returned, with many large clots of blood; repeated immediately, and partly retained. Bark injection not required. No stool; has had *℥v*. of wine; slept in the night, but talked much. Pulse 120, much more distinct and firmer; much thirst. Tongue furred, white, soft; lips pale, and partially covered with black crusts.

Stat. injic. Enema Domest. Sam. indies Vini Rubri, *℥vj*. Omit. Acid. Sulph. Dil. To have a pound of lemonade.

April 1st.—Enema returned, deeply tinged with blood, but without feces; shortly after, at short intervals, had repeated discharges of small quantities of blood. Bark injection then given, and retained till morning; since which four stools, very dark, liquid, partly feculent and fetid, containing a few clots of blood. Pulse 112, moderately full, of moderate strength, easily compressed.

Countenance very pale and depressed. Slept, but talked much during the night. Skin soft, of moderate heat. Tongue furred, white; respirations heaving, less frequent. Wine relished.

Contin. Vinum. To have ℥iv. of Calf's-foot jelly, containing ℥ij. of wine and sugar. Imperial for drink, without sugar.

2d.—Jelly relished. Several stools, pretty feculent, of mixed colour, with some slime, and several clots of blood. Dyspnoea in the night, to which she is subject; subsided towards morning; mouth rather cleaner; pulse 106, of moderate strength.

Contin. ut heri.

3d.—Four stools; the two last more feculent, and without blood. Less thirst; slept well, and is still drowsy. Pulse 120, of moderate strength; thinks herself better; mouth parched; dislikes the jelly and wine.

Omit. Vinum Rub. et hab. vice vini albi Hispan. ℥viij. Omit the jelly. To have a pound of very strong beef-tea daily.

4th, thirteenth of disease.—Several stools, some of them black, others more natural, though slimy, and containing no blood. Pulse 140, pretty full and distinct, easily compressed. Wound made in bleeding has not healed, discharges pus; the vein is felt hard for an inch above, and more than twice as much below it, in the natural situation, accompanied with surrounding hardness and much pain on pressure. Considerable pain in the hypogastrium, aggravated by pressure, but without distention or hardness; some difficulty in voiding urine.

Foveatur Hypogast. Brachio dolent. applic. Hirud. xii. Omit. Vinum. Contin. Jusculum Bovinum.

5th.—Six leeches fastened and bled well; in the afternoon, pulse 160, small and indistinct; complained of faintness; no complaint of arm; pretty frequent stools; had an opiste enema, and the wine was renewed. Pulse continued to sink; brandy was given; vomiting occurred at midnight, and she died at five this morning without preceding drowsiness or delirium.

Sectio cadaveris, 36 hours after death.—The coats of that part of the vein which had felt hard during life, were considerably thickened and firm; and for more than half an inch above and below the puncture there was a distinct coating of lymph upon its inner surface; only some minute spots on the other parts; no pus within the tube of the vein; a clot of blood at the lower part, where the sound and diseased portions joined. The vein above and below the hardened portion, and the collateral veins, were healthy. The

cellular and adipose substance around the diseased portion of vein were dense and firm.

Upon opening the abdomen large and numerous patches of soft lymph were scattered over most of its viscera, but chiefly upon the small intestines; and there were several ounces of serum, turbid from flakes of lymph, in the depending portions. The intestines were collapsed, containing no flatus, and scarcely any feces; numerous florid and arborescent vascular bands and patches on their peritoneal coat, with a corresponding appearance in the peritoneal lining of the abdominal parietes. A small perforation, about twice the size of a pin's head, was found in the lower part of the ileum, about twelve inches from where it enters the caput cæci; and in the corresponding part of the inner surface there was an irregular ulceration, without surrounding thickening or vascularity, of the size of a half-crown, part of the bottom of which was formed by the peritoneum alone. Five or six smaller ulcers lower in the ileum, some of them extending through the mucous coat, others down to the peritoneal. The mucous coat of the great intestines appeared healthy, as far as could be judged from a hurried examination. No feces, or feculent odour, in the cavity of the abdomen. Liver large, with hypertrophy of the grey matter. Lungs voluminous, considerably emphysematous, and crepitating every where.

Though this case illustrates several pathological facts of considerable importance, yet it appears to me, that by far its most interesting feature is, the occurrence of such extensive and rapid peritonitis, with such trifling accompanying symptoms. No doubt extensive effusions of lymph and pus do occasionally take place into the cavity of the abdomen in a very insidious manner; but these, as far as I know, differ in some essential points from the present. They have either taken place in a slow and gradual manner, forming examples of chronic peritonitis, or they have been accompanied with cerebral derangement, blunting sensation. Since morbid anatomy has become so much cultivated, extensive traces of inflammation occurring when the patient had been much debilitated by previous disease, are often discovered after death, the existence of which was by no means indicated by proportionate symptoms, or where they have been so slight as to have been entirely overlooked. In peritonitis from perforation of the intestines, even in the most exhausted condition of the body, when the sensation is unaffected, its occurrence is most generally marked by acute pain, which may, however, be of short duration, soon followed by vomiting and tympanitic distention. In some cases the pain has been so excruciating, and attended with such depressing effects upon the heart and

arteries, as to have proved fatal within twelve, or even six hours. In the present case, with the exception of some delirium during one night only, the mind was always perfectly coherent; little, if any, of the confusion of thought usual in fever was observable, and there was no drowsiness. It will be perceived from the reports, that the pain of abdomen is only mentioned once, and is the very last thing in that report, shewing how little she complained of it. In the afternoon she denied all pain of abdomen. This, however, is less wonderful, for by this time the pulse had become very feeble; and it is nothing unusual in cases of inflammation for the pain to abate almost entirely for several hours before death. The remarkable thing is, that the pain should have been so slight at the very commencement. How few of the usual symptoms of peritonitis were present, may also be seen from the reports. There was no distention of abdomen; instead of constipation the stools were frequent, requiring the exhibition of an opiate enema; and there was no vomiting except a very few hours before death; and this occurs so frequently about this period in various diseases, that little can be trusted to it. There was certainly a decided change for the worse in the state of the pulse, and the appearance of the patient, dependent, no doubt, principally upon the peritonitis; but the appearance of the phlebitis at the same time seemed to account for this change. If from mere pain of abdomen alone, continuing only for a short time, while the presence of a local affection apparently accounted for all the other symptoms which may have appeared about the same time, we were always to suppose that this was a case of peritonitis, from perforation of the intestines, I am afraid that scarcely a day would pass over our heads without committing serious errors.

WESTERN DISPENSARY, WESTMINSTER.

Case of Marasmus, cured by Iodine.

DECEMBER 3, 1830.—Charlotte Castleman, *æt.* 6 years, was this day admitted under the care of Dr. Lilburn. The mother reports that for the last six or seven months the child has been gradually wasting away, without her being able to assign any cause for it. Her appetite is very good, and her bowels regular; she does not complain of any pain, and sleeps well; pulse regular, 82; has never observed any worms in her alvine evacuations; the emaciation is now very great; neither this child nor any of a numerous family have the scrofulous diathesis; she lives in a very confined and unwholesome situation, and is unable from circumstances to change her abode; the child is in the habit

of getting her feet wet frequently, and her extremities are generally cold.

R Pulv. Scammoniz,

— Jalapæ, aa. gr. ij.

Hydrag. subm. gr. j. M. f. pulvis, omni mane sumendus.

Pediluvium tepidum omni nocte utendum.

10th.—She appears about the same as at the last report: there is no perceptible tumor of any of the abdominal glands, but from the appearance of the alvine dejections, the food is not properly digested; the bowels are opened twice or three times daily.

Cont. Pulv. Cathart. et Pediluvium.

24th.—Appears but little improved.

R Tinct. Iodinæ grt. iij. Infusi Rhei ʒss.

M. bis indies a.

Cont. Pediluvium. Omitt. Pulv.

31st.—Is in much better health and spirits since the last report, and from the appearance of the alvine dejections, the food is better digested.

Contin. Mistura et Pediluvium.

7th Jan. 1831.—Is considerably improved in appearance, and much more cheerful. The alvine dejections are more natural, and the circulation of the blood more equalized.

Contin. Mistura et Pediluvium.

11th.—The alvine evacuations are natural, and she is in every respect so much better, that at the request of the mother she was discharged cured, as the letter of recommendation was wanted for another patient.

12th Feb.—The child has continued in good health since the last report.

APHORISMS IN THERAPEUTICS.

Never abstract blood for convulsions, unless they be symptomatic of meningitis.—*Andral.*

In convalescence from gastritis, if the digestive functions are languid, and the appetite is not re-established, give a mild purgative.—*Idem.*

In herpes zoster, topical applications do more harm than good.—*Chomel.*

The spasm of the bladder and painful erections which accompany chordee, yield almost invariably to the use of clysters containing eight drops of the laudanum of Rousseau, and four grains of camphor, dissolved in the yolk of an egg. The same method may be used in young persons addicted to masturbation.—*Lisfranc.*

NOTICE.

Dr. Elliotson's lecture proving longer than the space left for it would admit, is unavoidably postponed.

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SATURDAY, JUNE 4, 1831.

ST. THOMAS'S HOSPITAL.

CLINICAL LECTURE,

DELIVERED BY DR. ELLIOTSON,

March 21, 1831.

Hysteria.

THE first case presented, gentlemen, was one of *hysteria*, to which I alluded at its admission*. The young woman was twenty-five years of age—girl we may call her, because women are not displeased at being called girls at twenty-five, though it is hardly fair to call you boys at twenty-four. It was a case which arose from the absence of her sweetheart, the maiden being two hundred miles from him. This had such an effect upon her that it not only threw her into fits, but it made her lisp; made her very peevish and snappish even to me, though I believe I was rather a favourite, for she said if I would remain at the bedside, without the sister, nurse, or any one else, she would tell me all about it: however, I was very well satisfied with the account which the sister of the ward gave me. It was a case of hysteria, which affected particularly the right side of the body, and the face was drawn to that side from the violent contraction of its muscles. The right hand was clenched, with the thumb bent in upon the palm, and the right arm gave more resistance in the fit than the left. She was the girl who I told you said "toe" for "no," and "yet" for "yes:" in fact, speaking exactly like a child.

The treatment indicated was decidedly anti-inflammatory. She was cupped, in the first place, on the loins to a pint; she was once cupped on the occiput to a pint, and well purged every day with a clyster of oil of turpentine, consisting of three ounces to sixteen ounces of gruel. This was given her the day after her admission, the fourth

February, the fifth, and so on for several days. Under this treatment, the fits not only became very slight but very rare, and at last ceased entirely, so that I left off this treatment, gave her house-diet and tonic medicine, a drachm of sub-carbonate of iron three times a-day. She recovered her speech, and could say "yes," "so," exactly like other people. She was no longer peevish, but received us always with a smile or a laugh, whereas before she snapped us all up. She became perfectly well, though her illness had existed, I understand, two years.

You will find this a very successful mode of treating many cases of hysteria—that is to say, the free loss of blood from the occiput or the loins, and perhaps from the arm; but those are convenient places to cup, and the glasses were accordingly applied there; and as the disease had this particular exciting cause in her, I was anxious to cup her in those quarters. The oil of turpentine, too, is certainly a most useful remedy in the treatment of hysteria: it unquestionably has far more effect, I think, than mere purging: it seems to have a peculiar influence, I think—I will not say what—upon the nervous system.

*Acute-Chronic Bronchitis—Enlarged Liver—
Spasmodic Cough—Efficacy of Iron—Laryngitis.*

There was also a woman presented in Mary's ward, who had come in for acute bronchitis, or rather *acute-chronic bronchitis*. She was twenty-eight years of age, and had been ill two months. There was rapid respiration, shallow respiration, great quickness of the pulse, and considerable sonorous rattle in various parts of the chest: there was also violent cough, excited by the least motion in bed.

She was bled to syncope, and took five grains of Hydrarg. Submurias every six hours, and was put on slops. Under that treatment the acute form of the disease entirely ceased, but I found that there was more than that to be subdued. There was

* Medical Gazette, No. 170, page 729.

† Ibid. No. 169, page 668.

great hardness in the upper part of the abdomen in the region of the liver, and I could feel the margin of the organ as low as the umbilicus, extending transversely. This was of course a chronic affection; and though she had not complained of it at all, it attracted my notice on examining the trunk on account of the bronchitis. After her recovery from the bronchitis, when she stood up, the abdomen looked as large as though she was pregnant; this evidently arose from the enlargement of the liver. We have had several cases in the hospital lately of women with enlarged livers. For this she was undergoing the friction of hydriodate of potash, in the proportion of a drachm to an ounce of grease; and the internal administration of the hydriodate, a solution being made, containing one drachm to an ounce of distilled water, of which she took a fluid scruple three times a-day, and at last two scruples and a half three times a-day. After the bronchitis went away, a violent cough came on, which seemed to be spasmodic in its character—that is to say, there was no inflammation, no local disturbance, which would explain it. Where a cough is violent, sudden and tearing beyond any sensible disease that can be made out, out of all proportion to any inflammation that exists, or without any inflammation that can be discovered; out of proportion to any organic disease that may exist, or without organic disease at all, we call it *spasmodic*. This is generally subdued by iron. I have known this now for many years; and though she had recently had bronchitis, I gave her that remedy. She took two drachms of the sub-carbonate every six hours, the effect of which was so beneficial that she speedily lost her cough; at least it only came on at the moment she was taking her medicine; only when the parts were undergoing irritation from swallowing the sticky electuary. Seeing that to be the case, I omitted the medicine, and she lost her cough altogether. Just before she went out, however, a slight inflammatory state of the larynx came on from the currents of air in the ward. There was pain there, cough in proportion to it, and tenderness. That required different treatment, and leeches were ordered for her. She had a great antipathy to leeches, made sad faces at them, and at last refused to have them put on. That was a species of insubordination not to be allowed in the house, and I could not give way to it. It was my business to do her good. I did not conceive that she could be benefitted in any way but by the application of leeches, and so she went away.

The case, however, afforded a good illustration, in the first place, of acuto-chronic bronchitis—being cured by bleeding to fainting, and the administration of calomel—of a subsequent violent spasmodic cough, and of

that cough yielding very decidedly to a preparation of iron. You will frequently find a cough of this description occur in patients without any other circumstance whatever; and you will find no medicine subdue it in the effectual way in which iron does. I do not know that the sub-carbonate is better than any other preparation of it, but iron is the great remedy for the complaint.

Inflammatory Jaundice.

There was also presented a woman who had been ill six days with *jaundice*. I need not tell you what the symptoms were in general, but I wish to call your attention particularly to the fact that there was pain in the hypogastrium on pressure—that she was hot, and also thirsty—that the jaundice had existed six days. This is a form of jaundice which continually occurs, but is not the only form in which that disease appears: when, however, this form does occur, you may very speedily cure it.

The treatment in her case was to cup her over the epigastrium to a pint; and as she was costive, to give ten grains of calomel directly and ten at bed-time, which were worked off by house-physic, senna and salts, the next morning, and she was put on slops. The next day the jaundice was diminished; the following day it was still less; and she required no further treatment, but was perfectly cured. She was admitted on the 3d March, and on the 14th the affection had entirely disappeared.

Now this was not the effect of the purging, for she had no stool till after the jaundice began to decline very considerably. I have no doubt that it was the cupping which removed the complaint. You will find that a great many cases of jaundice are the result of hepatitis—hepatitis of some particular part of the liver—I presume, about the ducts. Great congestion of blood about them may cause it. Whether it is really an inflammatory state or congestion, I will not say: I will not quibble about words, but you find many cases of jaundice attended with pain in the region of the liver, and by treating the cases as mere hepatitis, you get rid of the jaundice.

It is of great importance to know that jaundice arises from a variety of causes; that, in some cases, where there is organic disease of the liver, no treatment will do any good, whereas in other cases there appears to be a little obstruction only at the ends of the ducts, and purging will carry it off. In other cases, again, there is decided hepatitis, and if you treat it as such you remove it; whereas, if you give remedies of a fanciful nature, calculated you hardly know to do what, you will be unable to make any impression on the disease. If you ascertain whether any inflammation exists or not, and then remove it, if it exist, by the common

antiphlogistic treatment of cupping or leeching locally, or bleeding generally—the former, I believe, is the best—and follow it up with purging, you will get rid of the affection. I am quite satisfied that mercurial purging answers better than any other; though I do not know that mercury has any specific operation on the liver; it may, however, so act in two ways: first, by removing the inflammation (the inflammation being the cause of the disease), or it may act, secondly, simply by exciting the absorption of the obstructing matters. The effect may be produced by the common power that mercury has to excite absorption; but the anti-inflammatory power of the remedy is quite sufficient to explain its beneficial operation in a great number of cases.

Ovarian Dropsy.

There was a woman presented who had been in the hospital some time, labouring under *ovarian dropsy*. She presented herself from a desire to stay no longer in the house, but said that when she had been at home a little time she would return. This was the woman in whom the external application of hydriodate of potass, and its internal exhibition, appeared to do great good. She had had the disease four years, but it was steadily diminishing under the hydriodate. She had decreased, within the last three or four months, about five inches in circumference round the abdomen. She kept an accurate measurement of herself, and found she was steadily diminishing. She was far from her natural size, but still the diminution of her bulk was very considerable, and she was going on progressively; but, finding herself tired of staying in the confined wards of the hospital, she desired to go into the country for a short time. She was taking, at the time of her presentation, both the hydriodate of potass and the tincture of iodine; so that, in fact, she was taking ioduretted hydriodate of potass, as it is called. She was rubbing in the ointment of hydriodate of potass night and morning. She was a very persevering woman, and employed her remedy very diligently, and was therefore deriving its full benefit. In a great many cases this remedy is not by any means properly employed—it is employed in a very imperfect manner in the way of friction. I believe that many people only smear the ointment on the abdomen. Nothing is worse managed in our profession, I am satisfied, than friction; it is, generally speaking, only where an individual has great resolution on his own part, or where a person is employed expressly to rub in, that it can be expected to act at all efficaciously. When we order liniments, and applications of that description, in a great quantity of cases not one-tenth of our intention is carried into effect.

I may mention that there was another wo-

man, in the same ward, labouring under ovarian disease. She was admitted about three months ago. She has been subjected to the same treatment as the woman I have just mentioned—that is to say, friction with the hydriodate of potass ointment, the exhibition of hydriodate of potass internally, and she is at this moment taking the solution to which I before alluded—ten fluid scruples (nearly half an ounce) three times a-day. This woman likewise has been steadily diminishing; but there was not merely found enlargement of the ovary from liquid, but you could also feel cartilaginous portions at various parts. Although she was thus steadily diminishing, yet all at once, in a few days she began to diminish most considerably. But I cannot say that it was owing to the medicine, for she had had, for some days previously, pain in one particular part, and then, to her surprise, she found in the vessel a quantity of bloody liquid, which, she said, came from her to the amount of two quarts. She cannot inform me whether it came from the vagina or the rectum; but it was of a very dark red. I think that ulceration has taken place into one cavity or the other, and is pouring forth the fluid. I should suppose it is the vagina; and a very small opening may have been quite sufficient for the escape of the fluid. It has, however, come away, according to her account, to the amount of two quarts, and is a red and thick discharge—not watery, but thick. The tumor is greatly lessened, so that now she hardly appears larger than other women. It is possible that the hydriodate of potass may have caused absorption to a great extent in some one part, and so have promoted ulceration; but I should presume one ought to consider that all the absorption that could have been effected by the remedy would have had no such effect unless nature had been disposed to produce ulceration. I must, indeed, say that nature had set up ulceration, although the hydriodate may have promoted it. I mention the case now, because she will probably be presented after the clinical lectures are over, and I shall then have no opportunity of speaking about her. Her health has been perfectly good during the whole time, and I had, therefore, very great hopes of reducing the tumor considerably, though not of removing it altogether, on account of the cartilaginous formations in various parts.

I recollect meeting with a case of this description two or three years ago, where the tumor all disappeared in a night. The woman was taking some very active purging medicines, and all at once she was seized with violent pain in the abdomen and most profuse diarrhoea. She discharged a great quantity from the rectum, and the tumor was gone by morning;—a hard tumor, upon which, for months, I had been endeavouring to make an impression in vain. In that case

I had no reason to suppose that ulceration had occurred, but I fancied that a great secretion had taken place in the intestines, followed by a great absorption of the liquid in the tumor. What was discharged from the intestines was merely a thin watery fluid, such as we commonly see discharged by active purging. After a short time I again found an accumulation, but she would not submit to another dose of cathartics, on account of suffering such violent pain in the former instance, and what became of her I do not know; but, to the surprise of every body, a bulk went away in one night as large as if she were just going to lie in, and her abdomen became as flat as that of a male.

You will find some cases of this kind mentioned, where the tumor suddenly disappeared, and a great discharge took place from the vagina, after a fall. It has been supposed that the tumor burst, and the fluid escaped into the peritoneum and entered the openings of the extremities of the fallopian tubes; that they pumped it all up, and so discharged it by the uterus, from which it proceeded away into the vagina. That is the hypothesis given in the Transactions, where some cases of that kind are related. It is, however, probable that the tumor burst, that the absorbents of the peritoneum took it all up, and the vessels of the kidneys discharged it; for it is not always easy to learn from a female whether the fluid comes from the urethra or the vagina. This is no more than what often happens: absorption of a dropsical fluid, and rapid secretion of urine by the vessels of the kidney.

Inflammatory Gastrodynia.

Another case presented among the women was one of *gastrodynia*—that is to say, pain at the pit of the stomach, constant, but aggravated after taking food, with a rising of an acid fluid into the throat. This she had had two months. She was twenty-three years of age.

Where you have no tenderness in these cases, you find prussic acid one of the best remedies that can be employed; but if there be much tenderness, it is in vain to think of trusting to it, and you must employ the remedies of gastritis. This was a case of inflammatory *gastrodynia*. If the inflammation be very considerable, it is, as I have just said, in vain to give hydrocyanic acid; it will generally be rejected, and it will also aggravate the pain;—but if the inflammation be not very considerable, or if the spasmodic pain be out of all proportion to the inflammatory, then you may have recourse to hydrocyanic acid; but, on account of the inflammation, you must have recourse also to local bleeding. If, again, you find the tenderness gradually disappear after every attack of pain, you need not apply leeches at all; you may trust entirely to anti-spasmo-

dics. After every attack of spasm at the pit of the stomach, there is soreness and tenderness left. Every body knows, that after cramp in the leg at night, the part is sore in the morning, feels as if it were bruised; and so is the stomach after *gastrodynia*. There is a degree of soreness after a violent attack of pain, but it diminishes often in a few hours. Now if there be nothing more than the soreness left as the consequence of the spasm, the remedies for spasm will answer every purpose; if, however, the soreness should not gradually diminish, you may be sure that there is an inflammatory affection, which will require the usual remedies of inflammation.

There was too much tenderness in the case under consideration for me to suppose that it all arose from spasm—that it would subside if no fresh attack of spasm came on, and I therefore had recourse to twenty leeches to the epigastrium, which were applied every day; but as there was also spasmodic pain, evident from its coming on suddenly and violently after meals, and as it was out of all proportion to the inflammation, she took hydrocyanic acid. She began with two minims three times a day, not before breakfast of course, but immediately upon her meals—without any delay. The quantity was gradually increased to three, to four, five, and at last to six minims. When I came to the six minims she began to feel a little sickness and a little giddiness, and therefore I reduced it immediately to four minims, and even then it had the effect in some measure, and I reduced it to three. You find but few people who will bear more than four or five minims, and it is very wrong to begin with more than two; in general it is safer to begin with only one; but I never give at the commencement a dose of more than two minims of hydrocyanic acid. You find when you come to a dose that disagrees, a smaller dose must be given than that which had agreed with the stomach before. Now this woman took six minims with the effect of nauseating her, even making her sick, and producing vertigo, and pain in the head. I then reduced the quantity to four minims, but although she had borne five before, she could not now bear four—it disagreed with her stomach, and a smaller quantity only could be borne; she took only three minims. Under the combined treatment of the leeches and prussic acid, she went away perfectly well. You will find a great number of cases of this description in women about her period of life—twenty-three years of age; and frequently being accompanied by palpitation, they have sometimes been considered as cases of disease of the heart—at least by the patients themselves.

Chronic Laryngitis.

There was likewise presented a case of

chronic inflammation of the larynx. The woman was hoarse; she could only speak in a whisper; she had a hoarse cough; and on pressing the larynx, it was found to be tender. This was proof enough of disease of the larynx; but I do not think, in general, you can say what disease of the larynx there is—whether there is merely inflammation or disease of structure. You may now and then be right, but you are so frequently wrong, that I content myself with only writing on the patient's ticket, "Chronic disease of the larynx"—that meaning chronic laryngitis, or some structural disease. This woman had been ill nineteen months. She had some expectoration; the larynx was tender, and the tonsils were ulcerated. The ulceration of the tonsils was not syphilitic; there was nothing more than common ulceration of the larynx without specific disease, or perhaps there was merely chronic inflammation. Now if there be chronic inflammation of the larynx without specific disease, I believe you may do good; but if there be hypertrophy of it—if there be morbid growths—sometimes you will see the membranes thickened—sometimes you will see excrescences looking like venereal warts, and sometimes you will see scrofulous tubercles in it,—whenever you see things of this description, I presume you can do little or no good. If, however, there be merely chronic ulceration without a specific cause (excepting cases in which that cause is venereal,) then you may do great good by common antiphlogistic means and mercury: I do not know that there is any medicine so beneficial as mercury. It is difficult sometimes to know whether the cause be venereal or not—people give you such unsatisfactory accounts. It sometimes is very problematical whether a person has had syphilis or not; but for common inflammation of the larynx, as well as syphilitic, no medicine certainly is so good as mercury.

This patient had leeches applied to the neck; it was constantly poulticed, and she took blue pill, five grains, twice a day, which was increased to ten grains twice a day, and at last to fifteen grains, and then her mouth was made tender. The treatment, therefore, consisted essentially in the application of leeches to the larynx every day, and when she felt a little weak, every other day, and the exhibition of mercury till her mouth was tender. Her mouth was kept tender, and there was no other medicine used; but an attack of gastrodynia occurring, she took prussic acid, and she sometimes took croton oil to keep her bowels open, which at one time were rather torpid, and she then took a quarter of a drop every night. Under this treatment she lost the pain on pressure; she also lost her hoarseness, could speak very well, and her complaints were all removed. She was admitted on the 23d December, and presented on the 17th March. These are

cases that require long treatment even when you are successful, but it is to be remembered, that although she remained here nearly three months, she had had the disease, according to her own account, nineteen months before she came in.

Continued Fever.

There was a case of *continued fever* presented, which exhibited all the usual symptoms, was treated in the usual manner, and yielded to the usual remedies. I have not now lost a patient with continued fever for between two and three years, except one who came to the hospital in the last stage, and nothing could be done for him.

Ascarides.

Among the men was presented, or at least among the males, was presented, in the first place, a boy, who came in for *ascarides*. This is an affection far more common in children than adults. You will rarely see tape-worm in children—I do not know that I ever did—but *ascaris*, that form of *ascarides* which is called *ascaris lumbricoides*, as well as that which is called *ascaris oxyuris*—a sharp, thin, minute, white worm, and which is *ascarides* vulgarly speaking—occurs particularly in children. You will see the *ascaris oxyuris* occasionally in adults, but it is far more common in children. These worms occur, too, particularly in one part of the intestines, and that is the rectum. They cause a great secretion of mucus there, in which they burrow, and become so numerous that they sometimes crawl out, but it is not to crawl back again; when they come into the open air they soon shrivel up and die. Now in this boy they were so numerous that they crawled out at night, and his mother said that she used to pick them off the nates and surrounding parts. The symptoms of the disease were violent itching of the nose and of the anus, emaciation, and headache. The boy looked extremely ill; but I should only have guessed at the existence of worms except for the account given me, that they had been seen coming perpetually from him. He had likewise nausea I found, and vomiting. The symptoms were, according to the notebook, nausea, vomiting, headache, emaciation, paleness, itching of the nose and fundament.

When worms exist in the rectum, it is much better, I think, to apply the remedies to the part, than to give the patient the trouble of taking them by the mouth, and sending them all the way down by the stomach and intestines: I therefore gave this patient a clyster of oil of turpentine, which is one of the best remedies; half an ounce of oil to half a pint of gruel. This was used at first every day, but finding that no worms came away, two drachms were employed by the mouth.

I thought that although I had generally cured them in this way by applying oil of turpentine directly to the part, that in this particular case they might be seated higher up, and the clyster might not have been able to reach them. Under these circumstances we gave him by the mouth first a dose of two drachms, and then another day a dose of half an ounce; but still no worms came away. He, however, had lost all the symptoms, and his head was much better. He was admitted on the 24th February: after the first clyster I found that his head was better, and on the 4th March the account is, "He feels better, and has no itching at the nose or anus;" in fact, he was perfectly well.

Now I have not the least idea that there was any deception here, because there appeared to be no reason for it. He was a very nice boy, well behaved and well educated, and his friends were in tolerable circumstances; besides which, I had seen the same thing occur before. I have met with cases frequently where worms were not expelled, and I have done the same good as if the worms had been. I have seen this both in the hospital and in private practice. I do not know that all the symptoms which occur with worms depend upon the presence of the worms; they may be produced partly by the unhealthy state of the alimentary canal; and the oil of turpentine, whether worms have been discharged or not, has appeared to do good. No worms in this instance were ever seen here, and yet this boy was presented, and able to go home. The same circumstance has been mentioned by others; I read of it in Dr. Armstrong's books.

I was very much pleased to see that some one had observed this as well as myself. I fancied that these patients could not have had worms at all when I first met with the occurrence, but had feigned the symptoms, and then feigned a cure, because they disliked the turpentine; but when I found that another practitioner had made the same observation,—that, where no worms were found, the oil of turpentine still often removed all the symptoms, I had no doubt upon the subject; and this case is an example of the same kind. Whether the worms were discharged, and not seen—whether the oil of turpentine killed them, and they became so comminuted that they could not be seen—I do not know; but this remedy has an excellent effect in many states of the system, independent of its purgative power. It has a very beneficial effect in hysteria, and some other diseases of the nervous system, and therefore I can well conceive that it produces a particular influence on the alimentary canal, and removes an unhealthy condition of it. Here was a case admitted on the 24th of February, and presented well on the 17th March. As the boy was delicate, he afterwards took, for a fortnight, the sub-

carbonate of iron; under which he improved rapidly, and gained his strength. I gave him some to take home with him.

Acute Rheumatism.

Another case presented among the men was one of *acute rheumatism*. The man had been ill a fortnight with acute rheumatism, the symptoms of which I need not describe. The parts were hot and swollen; there were enlarged joints, together with some difficulty of breathing. I have repeatedly mentioned, in the course of the winter, that you should always look out for affections of the chest in acute rheumatism. There was tenderness on pressure at the front of the chest, no doubt rheumatic.

I cupped him to a pint, and gave him wine of colchicum—half a drachm every six hours. This he took for three or four days, when it began to purge him a little, and it was then taken only twice a-day; and he was presently well. He was admitted on the 3d March, and on the 17th went away perfectly cured, having been well about a week before he left us. You find most cases of acute rheumatism get well by bleeding, local and general, and the exhibition of colchicum; though sometimes, where the complaint is obstinate, it is necessary to have recourse to mercury afterwards.

Paralysis from Lead.

There was presented also a case of *palsy of the wrists from lead*. The case was precisely like others that I have alluded to in the course of the winter*, in its symptoms, and was cured in the same way—by the application of electricity. I never had recourse to electricity in paralysis from lead before this winter, and I certainly have every reason to be satisfied with it. The man became, in a short time, so well that he felt himself able to go to his work, and had no desire to stay here any longer; indeed I believe I may say he got perfectly well. The electricity was carefully and freely applied every day to the wrists, in the form of sparks. I believe I mentioned before that one man satisfied himself that sparks did much more good to him than shocks. The present man was admitted on the 3d February. He had been working in white lead for nine weeks, and his wrists had been palsied for a fortnight. He was in a few days better; on the 11th February he began to mend, and on the 17th March he was presented perfectly well.

Ague.

There was a man presented who said that he had ague; but it is a rule with me never to prescribe for that complaint till some one in the hospital has seen the paroxysm. This

* Med. Gaz. No. 186, p. 283; No. 169, p. 702.

is one of the diseases in which people deceive you; they say that they have ague when they have nothing the matter with them. I also observe this rule on another account: frequently they come to the hospital from an aguish situation, and they lose their disease even if you apply no remedy. I believe that ague very often (it is so said in books, and I have seen it myself) has a tendency to cease. Some say that a vernal tertian has a tendency to cease after seven attacks; however that may be, it is a truth that if persons leave a place where they have caught the ague, they frequently lose it. On that account I never give medicines till the ague has been seen; and by so doing I am able to satisfy myself respecting the powers of any remedy that I employ. If the paroxysms come on at the hospital very slightly, then I do not give medicine till I see whether they will not subside spontaneously altogether.

This man said he had had the disease five months; that he had been at Sierra Leone, and had had a tertian, but that it ceased for a few weeks, till the night before he came to the hospital. I found that he was labouring under a violent inflammatory headache, and therefore I had him bled, put him on slops for two or three days, had him bled again, and no fit of ague occurred. If I had given him salicine, or sulphate of quinine, I should have drawn a wrong inference, and supposed I had cured him. He stayed in on account of the pain in his head, and had leeches applied to his temples; and I then discovered that he had gonorrhœa, though he had not thought proper to tell me of it before. On the 4th of March, however, having stayed here on account of the inflammatory pain in the head, the ague again returned, and was witnessed by the sister of the ward. I believed his account from the first, because he had an aguish look—the ague face; the sister of the ward now saw his disease—saw the shivering. I then gave him sulphate of quinine, and the disease ceased.

Perhaps I ought to mention, that, in the course of the winter, I alluded to an extraordinary case of what appeared to me a modification of ague, in a little boy living by the water-side, which had supervened on the application of leeches for abdominal inflammation*. The leech-bites became red every night, they tingled and smarted, and the pain was so violent that it almost drove him mad. Now I never saw any thing of the kind, and was astonished at the occurrence; but as it was said to come on regularly at half-past eight o'clock, I thought it might be of an aguish character. The medical gentleman attending the family, with whom I was called in consultation, had given him

sulphate of quinine, and I advised the continuance of that remedy. I said nothing could be better. He was going on with twenty grains, in divided doses, every twenty-four hours. At first he became better; the disease was arrested, but it returned time after time, and he took salicine. Whenever the medicines were resumed, or the doses increased, a decided check was given. I never saw him in the paroxysms, but all the persons about him said they had been seen, and the leech-bites were very red at the time. Now certainly I had no suspicion of deception: I very often suspect patients who are grown up, but I had no idea of a little fellow, eleven years of age, practising deceit. He went on week after week, and I lost sight of him. I recommended that he should have full doses of opium given him, and the sulphate of quinine in larger quantities; but all the remedies at length failed even to produce temporary good. He was taken to different practitioners, and no good was done to him, till one saw him who had witnessed a great deal of deception among sailors, and he did not think it impossible for a little fellow like that to play the rogue. I, in my innocence, never suspected such a thing. I have no doubt that the disease was at first real, but at last feigned. This gentleman said he was satisfied it was all humbug, and when the complaint came on, the best thing that could be done was to put him into a tub of cold water, instead of comforting him, and to keep him in the water till he was half drowned. This put a stop to it at once. This was not an effect upon his mind; for he afterwards confessed that he had latterly been shamming, that he might stay at home and not go to school. I was not up to this, because the father said, that, when he was better, after taking the full doses of sulphate of quinine and of salicine, he got to working at his books, and endeavoured to make up all the time he had lost at school, and was one of the most industrious, best little fellows that ever lived. Hearing he was anxious to get back to school, I was unprepared to conjecture any motive for deception, and such a trick never entered my imagination. As I mentioned the case before, it is but fair that I should tell you the result, and say that at last we were deceived. Still, however, I must again repeat that I would rather be taken in nine hundred and ninety-nine times, than in one case out of a thousand pronounce a person an impostor who afterwards turned out innocent.

Rheumatism—Syphilis.

Two other cases were presented which I have not yet spoken of—one a very obstinate case of *rheumatism*, which was admitted on the 16th December, and actually remained in the house till the 17th March. It was at

* Med. Gaz. No. 163, p. 487.

first a case of cold rheumatism, relieved by warmth. The patient took tinctura guaiaci ammoniata, in doses of a drachm, at first three times a-day, but subsequently every six hours. At last, however, I began to suspect that there was something syphilitic in it. It is sometimes a very difficult thing to satisfy yourself whether, in rheumatism, there is not some syphilitic taint; but, on observing the case narrowly, I began to be satisfied about it, from the regular aggravation of the pains at night, and the patient took ten grains of blue pill twice a-day. Under this treatment, by keeping his mouth sore and applying leeches to his head—for he had an inflammatory headache, attended with drowsiness and throbbing—he got well; but it required the exhibition of mercury from the 23d December till the end of February. He was then perfectly well. You will every now and then meet with cases of this description. You will see syphilis written over the beds of my patients, who, of course, are not in the foul wards, and these are individuals who came in for rheumatism, but in whom, on carefully watching the cases, it is discovered that, although they had rheumatism, they had syphilis into the bargain; or they have been cases of eruption which at first did not appear syphilitic, but ultimately turned out to be so, or to be so in all probability.

Acute Rheumatism.

There was another case of acute rheumatism presented, which was treated simply by colchicum. I need not describe to you the symptoms of acute rheumatism. The patient had been ill six days. He took half a drachm of vinum colchici every six hours, and was put upon slops. As the pain was severe at night, he took two grains of opium always at bed-time. The disease did not give way till he was purged, as is the case in most other instances; but here the patient was not only purged, but he likewise vomited. The case is interesting on the following account. He began the medicine at his admission on the 1st March: the next day he was purged, and the disease was lessened; and the disease was entirely gone by the third. The purging ceased, but the vomiting still continued: the colchicum produced such an irritability of the stomach that the vomiting continued. Now I let this vomiting go on two days, that I might give nature an opportunity of recovering from the irritation if she could, and as she often does, or prove to you an important practical point. In general, when you leave off the colchicum, the vomiting ceases or declines, but it did not decline in this instance. The irritability of the stomach remained on the seventh of March just as violent as on the third, when the colchicum was first omitted; and then he took hydrocyanic acid. There was no tenderness at the pit of the stomach; it was

merely morbid irritability. He took the prussic acid—two minims in the middle of the day; and *after the first dose*, the vomiting declined. He took another dose in the evening, and one the following morning; and on the next day, the day after he began the medicine, he did not vomit at all. I consider this one of the most useful properties of hydrocyanic acid—it puts a stop to vomiting from excessive irritability—not from excessive inflammation, but from *morbid irritability*. I do not think that any medicine has so powerful an effect as hydrocyanic acid in stopping this kind of vomiting. I believe I have previously mentioned that when you are giving medicines calculated to produce vomiting against your wishes, it is a good practice to give hydrocyanic acid at the same time; or what is still better, ten minutes before. In general you may prevent the colchicum from causing sickness, or the sickness will be only temporary; but when vomiting does actually occur, there is no medicine so well calculated to remove it. In the next lecture I shall have to allude to another case where vomiting came on from the administration of colchicum; and where, notwithstanding the colchicum was omitted, the vomiting continued; but on the administration of hydrocyanic acid, it *instantly* stopped.

Active Rheumatism.

There was another case of *rheumatism* presented, which was *active*, but not *acute*. It had existed a year, but the case is instructive as shewing, that although the disease had existed so long, it was still inflammatory, for there was heat, accompanied by pain and tenderness on pressure. I treated this patient in the usual way, by local bleeding—eight leeches to each foot every day, and half a drachm of vinum colchici three times a-day. After the complaint had been very much diminished, it seemed stationary; there was great heat left; and the colchicum would not dissipate the affection. It is often the case when the disease is not acute, but has lasted a considerable time, that it continues to be active, and aggravated by heat, and then mercury answers the best purpose. He took ten grains of blue pill twice a-day, and was presented quite well.

CASES ADMITTED.

Gastric Dyspepsia.

With respect to the patients admitted during the week, I may mention that among the women was a case of palpitation, connected with dyspepsia, in which there was no susculatatory sign whatever beyond common palpitation, with nausea, vomiting and acidity, which has improved very much indeed, and appears to be rapidly giving way to the treatment adopted in a case before alluded to—leeches and hydrocyanic acid. It is a

case of gastric gastrodynia—gastric dyspepsia, attended by palpitation. It has occurred in a young woman, twenty-four years of age.

Inflammatory Epilepsia—Paralysis.

There was another woman admitted with *epilepsy*, evidently inflammatory, and attended by a degree of *paralysis*, for the face is drawn to the left side, and the patient can speak but very imperfectly. There is headache, drowsiness, and costiveness. The treatment consists in free bleeding from the head: she lost twenty ounces of blood by cupping; on one occasion a pint of blood was taken from the arm; mercury has been given to very gentle ptyalism, and she is already much better.

Fever.

There was also admitted a case of *fever*, in which there was no tenderness whatever at the pit of the stomach, but great affection of the head—that is to say, great pain of the head, and great oppression of the eyes; but by means of the common treatment usually adopted by me in these instances—cold ablution, the application of leeches to the part affected, and the free exhibition of mercury till her mouth was slightly tender, she is getting rapidly better.

Gonorrhœa.

Another case admitted was said to be internal piles; but on examination it proved to be a case of gonorrhœa and warts. She was only eighteen years of age, and assured me that she had not been in the way of such an affection. But the warts must have been of three months standing, and I therefore sent her to the foul ward, with the rest of the naughty women.

Psoriasis Guttata.

Another case admitted among the women was one of *psoriasis guttata*—that variety which forms the connecting link between lepra and psoriasis. I believe these are essentially the same diseases, and there is one between the two called *psoriasis guttata*. She had had the disease twelve years. There was slight vertigo, but considerable tingling and itching; and on that account I began by bleeding to a pint, which at once removed the itching. She is taking nitric acid.

Hypertrophy of the Heart—Bronchitis—Peripneumonia.

Among the men was admitted a case of hypertrophy of the heart, and which, without auscultation, would have been supposed to be only such. It was evident that he had the disease—any one might have said that without auscultation, for the thump of the heart was tremendous; but on applying

the stethoscope, I found that he had also *bronchitis* and *peripneumonia*, which gave him no pain, and his dyspnoea would have been ascribed to the heart. On questioning him, he said that he had been much worse for a week. It was evident that an acute disease of another organ had supervened on an affection of the heart. Where chronic disease exists, an acute attack frequently supervenes. The pneumonia was very severe, for sonorous and crepitous rattle were heard nearly all over the chest; but by bleeding him to fainting, and making his mouth tender, the man is now able to breathe pretty well, and allows hardly any thing to be the matter with him by comparison; though when he has forgot his sufferings during the inflammatory state of the lungs, he will feel his sufferings from the disease of the heart. He lies in bed; the morbid rattle in his chest has ceased, and he is as well as he was a fortnight ago, before the inflammatory attack.

Pleuritis.

There was also admitted a case of *pleuritis*, which arose from a fall—a case of pleuritis from mechanical violence. Of course it is our business, in cases of this description, to ascertain whether any ribs are broken, for that is continually the case: an examination shewed that there was no such thing.

Acute Rheumatism—Paralysis Agitans from Fright.

A case of *acute rheumatism* was admitted, and a case of *paralysis agitans* from fright. I have had several cases of paralysis agitans under treatment in the course of my life, and I find that it generally occurs in persons about or past the middle period of life, or afterwards. This fact was also exemplified in this man; he was fifty years of age. When the disease has arisen in a person past the middle period, I have never been able to effect a cure, and most probably because it usually depends at that age upon organic disease. I cured one patient who was between thirty and forty years of age, but he was the oldest. In this instance, however, it has not come on slowly, as if from organic change, but has arisen from fright, which is, perhaps, a rare circumstance. It is possible, therefore, that I may cure him. He has taken the remedy with which I cured that one case, and cure all ordinary cases of St. Vitus's dance, the carbonate of iron; he is much better. The man regularly receives me with a smile, and fancies that he is getting quite well; but it would not be right yet to give a decided prognosis.

Erysipelas.

There was likewise admitted a case of *erysipelas* of the head, which is doing well. The man was seized with a violent

headache and purging. He applied to a Frenchman, he says, who, I believe, was no doctor, or only half a doctor; he ordered a red powder to be put on a poultice and applied at the back of the head. This red powder gave him intolerable pain at that part of the head; but I do not believe it could have had the effect of producing the disease, and for this reason—where the powder was applied there was no inflammation, the part was merely stained red from the application, and he had headache and vomiting before; and therefore the presumption is, that the erysipelas was beginning when he used the powder. He was forty-six years of age. I bled him to a pint, and as he had had no stool for two days, I gave him a scruple of calomel, followed it up with castor oil, put him on slops, and ordered cold water to be constantly applied to the head. His pulse fully justified anti-inflammatory treatment, and the next day twenty leeches were applied to his neck, for he complained of pain in the throat, and it was very red. With this treatment he did perfectly well. I may mention, that a scruple of calomel, followed by castor oil, only produced five stools. You saw that cold water was constantly applied, and that no harm arose from it. I have never myself seen any danger from the application of cold water in erysipelas; as long as it is grateful to the patient, you may always have recourse to it with great advantage. Of course I should not apply it, as I have said a thousand times, if it produced chilliness, or was not pleasant to the patient's feelings; but as long as it is agreeable it will do good. I never saw harm from it, but then I always take care to employ proper evacuations; and if I had not bled this patient and put him on low diet, it is possible that the application would have done mischief. There had been a tendency to inflammation in the system, and if it had been thus repressed, it might have seized on some other part.

Epilepsy.

There was a case admitted of *epilepsy*, which was very interesting on account of its affecting one-half only of the body. The paroxysms began by a violent shaking of the ring-finger of the right hand; then other fingers shook; then the whole hand; then the fore arm; afterwards the upper arm; then the upper extremity; and then the whole right half of the body, and the right leg; and the right side of the face would be convulsed. He had had the disease for three months. The case was clearly inflammatory; for before his admission he had pain in the head till he was cupped, and then was much relieved. The pulse I found full, and I therefore ordered him to be cupped to a pint. He had had no stool for two or three days, and he therefore took a scruple of calo-

mel, which was followed by castor oil, which operated well but not excessively. He was cupped to another pint, and on the 25th he was a great deal better. He had another fit or two, but they were exceedingly slight. There was still some pain in the head; and as his pulse would allow it, I yesterday ordered him to be bled again. By this treatment, and keeping him on low diet, I should hope he will be cured.

OBSERVATIONS

ON THE

NATURE AND TREATMENT OF THE PLAGUE.

By T. MILLINGEN, Esq.

Surgeon to the Greek Army.

Constantinople, Nov. 25, 1830.

MY DEAR SIR,

I HAD the pleasure to forward you on the 10th instant, the last portion of my Memoirs. I trust that by the time you receive this, it has already safely reached its destination. By the present occasion I send you the observations I made on the plague which prevailed in the Morea in 1825 and 1826. Mention is made of it in my Memoirs; but as the details contained in the inclosed pages would, in some measure, have broken off the thread of my narration, I deemed it more proper to publish them as an appendix to the work. Should the present arrive too late for insertion, I beg you will forward the article to the editor of the most esteemed medical journal, requesting him to publish it in his next number, adding my name to it. Leaving the matter entirely to your disposal, I remain,

Dear sir,

Yours sincerely,
T. MILLINGEN.

To T. Rodwell, Esq., London.

The symptoms of the plague are so well known to medical men, from the perusal of the descriptions of this distemper published at different epochs by the physicians who have witnessed its ravages, that, unable to add a single feature to their accurate delineations, I should but misspend time in undertaking a task already so well executed. The history of the Messenian epidemic, and the treatment found in it most successful, are the only subjects that will, in the following lines, be submitted to the reader's consideration.

An Algerine man-of-war, on board of

which the plague had been raging for some time, entered, on the 17th of June, 1825, into the harbour of Modon, and anchored close to the town. Several of the crew came on shore shortly after, and gave the linen of the ship, in order to get it washed, to three different Modoniot families. A female belonging to one of these was, during the night of the 18th, suddenly taken ill, and two days after expired, having on several parts of the body pestilential eruptions. Almost simultaneously several members of the same, as well as of the other two families, were attacked with the like symptoms, and shared the same melancholy fate. From this source the contagion irradiated itself in every direction, with a rapidity so alarming, that within the space of three weeks there existed not within the walls of the town a single family that had not contracted the infection, with the exception of those few that had sense enough to lay by their Mahomedan ideas of predestination, and observe within their houses an exact quarantine. The disorder extended also its dire influence to the camp. Its effects on the Arabs were, however, comparatively speaking, much less severe than on the indigenous population and negroes. Many of them appeared, as it were, proof against contagion, while few among the Moriots, and none among the men of colour, approached it with impunity. Such was the violence of the distemper after the fourth week, that the mortality amounted for some time to forty, and even to fifty a-day; a proportion which will appear considerable, when it is remembered that the indigenous population (Greek slaves and prisoners included) then existing at Modon, did not much exceed 7000. The disorder, after some time, insensibly began to abate; towards the beginning of September the number of recoveries was already considerable, and the majority of patients attacked in the latter end of the month, after a trifling indisposition, rapidly got well. During the month of October the complaint insensibly disappeared. Why contagion no longer arose now, either from the bodies of those who had buboes and carbuncles in a state of suppuration, nor from the clothes, &c. impregnated with the seeds of the complaint, existing in every house, it were vain to attempt explaining, ignorant as we are of the causes which favour its first develop-

ment, and influence the numerous capricious variations to which it is liable. How shall we account for the fact of the contagion remaining without effect at Nisi of Calamata, as well as at Coron, although communications with the seat of disorder were never interrupted? Several individuals who arrived from Modon died of the plague in the camp, established in the former spot; yet, except in a single instance, the disorder did not propagate itself to any one. The individual alluded to was a young lad in the service of the Hasnadar Bey; he died in less than twenty-four hours. Upon inspecting the body I observed a small bubo in his right groin. I was at one time inclined to think, that the marshy miasmata existing in the atmosphere of Nisi, to such a degree that more than two-thirds of the soldiers were labouring, at that moment, under intermittent fevers of a highly pernicious nature, were, by neutralizing the contagion, the cause of the camp remaining exempt from its baneful effects. Yet so many instances came afterwards to my notice, of contagion being imported to places enjoying the most salubrious air, and there spontaneously disappearing, that I abandoned that idea as unfounded, and adopted the conclusion—that the plague, though an eminently contagious disorder, is not invariably but conditionally such.

The garrison of Navarino was not so fortunate as those of the above-mentioned places. Some soldiers belonging to it conveyed from Modon the contagion within that town. The disorder proved here much milder than at Modon, yet it continued to exist after it had totally ceased in the latter place; even in January ten or twelve persons died of it. At the very moment every one fondly hoped the epidemic was on the eve of vanishing, information came of its having made its terrific appearance at Coron. According to the opinion of most of the inhabitants, an old fur and clothes, purchased by a Coroniot in the bazaar of Modon, were the means of introducing the distemper within their walls. How far this supposition was founded it is impossible to decide; but certain it is, that the individual in whose possession they were, was the first who died of the plague.—Within a few days his wife, children, and servant, shared the same fate. The Coroniot epidemic exhibited a character

of the greatest malignancy. Many of those attacked died in the space of a few hours, having, in general, no pestilential eruption on the body, but at times having the surface covered with livid vibices and petechiæ. During the epidemic buboes and carbuncles appeared but rarely.

Modon and the camp enjoyed, as long as the plague was raging at Coron, the most enviable state of health. It was not before the latter end of June that they became again acquainted with this awful disorder. Among the first attacked were three friends of mine, Dr. Mino, Dr. Gavotti, and Mr. Trona. The first fell ill a few hours after having felt, without being aware of the nature of his complaint, the pulse of a soldier. The second died twenty-four hours after examining a carbuncle situated on a man's leg, mistaking it for an ill-conditioned sore. Trona caught the complaint in consequence of his generously persisting in attending, to the last moment, his friend Dr. G., though fully aware of the danger to which he thus exposed his own days. As far as the prejudices and ignorance of the Turks would permit it, sanitary measures were immediately taken. The hospital, where upwards of fifteen hundred sick and wounded were lying at this moment—thanks to the strict observation of the instructions given—remained free from the disorder. Two lazarets were established; the one for the reception of those from the camp, and the other for the town's-people. To prevent communication between the contaminated and the exterior, a cordon was placed around each lazaret. But so remiss were the Arab sentinels in the performance of their duty, that but little good could arise from these establishments. Wishing to ascertain how far the orders given were executed, I went one evening to one of the posts, where finding no one, I advanced close to the lazaret tents, under which I saw the greater portion of the cordon *sanitaire*, some amusing themselves with their convalescent comrades, and others dancing the Arab fandango for their recreation. I plainly saw from that moment that, following the predominant fashion, I was to abandon the events to the *Allah-kerim*. The negligence of the harem gate-keeper caused the contagion to introduce itself among Ibrahim's women. In one word,

the disorder raged uncontrolled in every quarter. It ceased spontaneously in October, after having destroyed upwards of six thousand individuals.

As far as my own experience, and the result of constant inquiries in Peloponnesus, and during a residence of several years in the Levant, allow me to pronounce on the subject, coming into close contact with pestiferated patients, or with objects that have either been touched or worn by them, is the only mode through which the contagion of the plague propagates itself. It differs essentially in this point from those epidemic disorders which are taken into the system, by inhaling the effluvia contaminating the atmosphere of a certain town or district, as well as from those, the contagious influence of which is active only for a very short distance around the patient. Although during several months in the habit of daily visiting numerous patients labouring under the disorder in question, and not only of breathing the air of unventilated rooms where several were lying, but also of approaching my face close to their persons, in order to judge of the state of the circulation by observing the pulsations of the carotids, and the nature of the respiration, as well as to examine the tongue, buboes, &c. yet I escaped the contagion. I attribute this entirely to the precaution I invariably took of never touching a patient, nor any object in their apartments; and every medical man in the army obliged to wait upon the sick, succeeded equally in preserving his health, by observing the same rules. In no one instance did any person become attacked with the complaint without his being able to acknowledge, as cause of the accident, his having touched the clothes or body of a patient labouring under the disease. So intimately convinced was I at last of the above-stated fact, as to put it to the test of experiment, by practising venesection on a young woman of Ibrahim's harem, a few hours after the appearance of the symptoms of the plague. After causing the ligature to be applied by one of her attendants, I opened the vein, after taking the precaution of anointing my hands with oil, and applying wet leaves of tobacco around the fore arm. No conclusion, I am aware, can be drawn from a single fact, it being possible, moreover, that I am one of the happy few endowed with

the power of resisting the action of contagion; yet, when this and the above-mentioned facts are taken into consideration, the opinion I have stated will, I trust, be considered as not altogether without some weight. May future experiments demonstrate its truth. Then, instead of imitating the pusillanimous conduct of the generality of medical men during pestilential epidemics, shall future practitioners listen to the cries of suffering humanity, and perform their duties without exposing their own safety.

There existing no specific means of neutralizing the pestilential poison when once introduced by absorption into the economy, moderating in time the violence of its effects is the sole object the physician can undertake to accomplish. Amidst the formidable symptoms its energy gives rise to, the most predominant are those denoting the sufferings of the brain and appendages, as well as of the stomach. Analogy points out that they are in almost every respect similar to those arising from inflammation of these organs carried to its highest pitch; so that the disorder may be termed an encephalo-gastritis, connected in general with an affection of the lymphatic system. Pathological researches amply confirm this idea. To the inflammatory stage, the duration of which seldom exceeds twenty-four hours, succeeds one composed of symptoms that are but the expression of the degree of injury inflammation has operated on these important organs. Should it have been slight, recovery follows, otherwise the fatal termination is inevitable. This we observed in the numerous patients who refused medical aid, and entirely abandoned themselves to nature's care. It arises from these considerations, that the speedy and energetic employment of means capable of subduing the inflammatory symptoms offers the only chance of saving the patient, by putting a stop to the work of disorganization. The second stage once fairly established, the patient's fate is already irrevocably pronounced favourably or unfavourably.—In the former case the interference of art is almost superfluous, in the latter of no avail.

Convinced how very limited the time is during which the antiphlogistic means can be of service, I invariably declined undertaking the treatment of those who

applied for my assistance after the lapse of twenty-four hours; and to this circumstance I in a great measure attribute the success of my practice. The following is a brief outline of the treatment I employed:—The congestive stage being generally gone by when I saw the patient, I ordered venesection *ad deliquium*, and half an hour after the operation the application of 40 leeches to the temples, and of an equal number to the epigastric region. The alleviation of the cephalic and gastric symptoms, which invariably followed, continued in general but a few hours. On the exacerbation supervening phlebotomy was practised without delay, and, if necessary, repeated for the third time on the same day. On the following leeches were applied again in the neighbourhood of the above-mentioned organs, in numbers proportioned to the urgency of the symptoms, and the same means again and again resorted to, until every spark of inflammation became extinct. About this time blisters to the nape of the neck, and over the epigastric region, were found peculiarly advantageous. As long as pain continued to exist in the head, cold applications were constantly employed. Sponging the surface of the body with water and vinegar afforded much relief to the patient's feelings.

During the first days of the complaint the only medicine I administered was the aqua Lauri cerasi. Given in doses of ten drops every hour, it is perhaps one of the best sedatives we possess in febrile disorders attended with much nervous agitation. Refrigerant drinks were liberally allowed to every patient.

The results of this simple treatment were in general most gratifying. The disorder appeared to be disarmed by it of its malignancy, and to have been metamorphosed into a malady of common occurrence. Successful as my practice was, it would, I doubt not, have been yet more so had not my endeavours been counteracted by the ignorance and sloth of the patients' attendants, and at first by the deep-rooted prejudice they entertained against blood-letting. This arose in consequence of their having seen it employed in numerous cases which nevertheless proved fatal. It is strange that many physicians should have adopted the same conclusion, without reflecting that in every complaint in which phlebotomy is the

only means of salvation, its success depends entirely from its being sufficiently early and energetically resorted to.— Shall we say that phlebotomy is fatal in phrenitis, peritonitis, and other disorders of this class, because hundreds die of these complaints in consequence of timid or negligent practitioners having performed the operation too late and too sparingly? How oft also is every advantage obtained by venesection destroyed by the empirical administration of remedies, whose action is diametrically opposite to the end proposed? How many practitioners light with one hand the fire they seek to extinguish with the other? Emetics and purgatives were, on this account, never administered to my patients, persuaded their irritation could not but awaken anew the gastric symptoms, which the employment of the antiphlogistic means had just allayed. I had repeated occasions to witness the evils they gave rise to. Indeed, it were difficult for a physiological physician to imagine what good results those who give them can suppose will arise from their effects, more especially as we see that vomiting, which generally exists at the beginning of the complaint, far from relieving the patient, proves one of the most harassing and obstinate symptoms, and that diarrhoea is an invariably fatal sign. When inflammation has been entirely subdued, sufficient alvine evacuations may be procured by oily emulsions and emollient clysters.

What has been said relating to purgatives is yet more applicable to the administration of tonics and narcotics. Ether, camphor, opium, valerian, bark, musk, &c. were, during the epidemic, freely ordered by some of the Italians in the service. It is almost superfluous to say they were in every instance highly injurious. Diaphoretics have been recommended by many systematic writers, and more especially by Sydenham. In the more dangerous forms of the plague their administration during the inflammatory period will remain without effect; and when this has been properly combated, a spontaneous perspiration generally appears, which relieves the patient much more than if it had been forced by art. No practitioner, aware how precious the first hours of this complaint are, will trifle them away in watching the operation of a remedy which, were it even to have its full ef-

fect, could produce but an alleviation alight, indeed, when compared to that which proper antiphlogistic measures will assuredly obtain in the generality of cases.

Linseed poultices, rendered stimulant by the addition of mustard, were the applications I usually made to buboes. Their suppuration is as desirable as their retrocession is, generally speaking, inauspicious. Among the various applications made to carbuncles, the fermenting poultice is, perhaps, the most advantageous.

Such are the outlines of the treatment which, in this terrible disorder, appears to offer the only chance of saving the patient. I found it to fail only in those cases in which the brain had received a deep and violent irritation, which at once, as it were, paralyzed its powers of reaction, and threw it into a condition which baffled alike all the assistance of medical art.

AN ACCOUNT OF A BITUMINOUS SUBSTANCE,

Named Mimi-há by the Natives of New Zealand, and used by them as a Masticatory.

By GEORGE BENNETT,

Member of the Royal College of Surgeons of London, &c. &c.

THIS substance, which, in general appearance, resembles a bitumen, is used by the natives of New Zealand, of both sexes, as a masticatory. In its ordinary state it is hard and brittle, but it becomes perfectly soft from the heat of the mouth.

The mimi-há is perfectly black in colour, has a pleasant and somewhat bituminous odour, and breaks with a beautiful shining black fracture. It is very inflammable, burns with a clear flame, leaving little or no residue, and yields, when burning, somewhat of a waxy odour.

This is not the only substance used by them for the same purpose; the gum-resin, of a species of dammara, named kowri by the natives, is similarly employed. This is procured by making incisions in the trunk of the tree, which exudes a considerable quantity in the liquid form, which is then allowed to harden for use as a masticatory. The mimi-há is also called kowri tauhiti:

kowri signifying "the resin of the kowri pine," and **tauhiti** "at a distance," or "from a distant part." I endeavoured to ascertain from what part of the island this substance was procured, and my curiosity was much increased when I was informed that it was taken from the intestine of a large fish, which, as well as the substance itself, was named by the natives **mimi-há**. It was said generally to be found on the sea coast, near the East Cape, but was also said to be rare (which is no doubt correct, as it did not appear abundant amongst them, and they seemed to set a high value on it). The fish was described by a native belonging to the East Cape, who must have had the shark in his imagination when he gave the description. It was about fifteen feet in length, and about six in breadth; the dorsal fin was of a very large size, and from being seen a considerable distance out of the water, was named in the New Zealand language, the **ra**, or sail of the fish. The pectoral fins were also of a large size. The fish, of which the foregoing is considered to be an accurate description, was, he said, thrown dead on the beach when he saw it. Another native informed me that he had seen the fish which produced this substance; it had been thrown dead on the beach at the North Cape, and was about *ten feet in length, six feet in breadth, and three feet in thickness; it had only two fins, one on each side, which were about eighteen inches in length; it had no tail. The head was rather flat; the mouth was large, but had no teeth or bones; it had two small eyes, and also a tongue and nostrils.* Its general colour was black, and the whole of the fish was similar in character to the substance which I had seen, and the whole of it was used as a masticatory; being, however, when first taken, soaked for a short time in water, and was then ready for use. This was, indeed, a most interesting fabulous account, and what amused me most was the apparent candour with which it was related, and his ready reply to all questions; which, but from the substance itself differing so much in character, might have induced me to believe it a correct and accurate statement. An old chief, belonging to the river Thames, named **Taorata**, of whom I made inquiry respecting this production, some time after I had heard and recorded the preceding accounts, told me, in a very plain statement, and

in contradiction to my former minute describers, that it was not a fish, nor, to his knowledge, produced from one; but that it was found thrown on the beach, in the state in which I then saw it, of various sizes and forms; that it was used as a masticatory, but for no other purpose. The latter is, no doubt, the most correct statement; at all events it is the most probable, and it may be supposed to be either of volcanic origin or to be produced from the intestine of some species of fish, as the **amberggris** is from the **cachalot** or **spermaceti** whale. No surprise, however, ought to exist at the falsified statements of the New Zealanders respecting this substance, as it is not the first instance on record of their marvellous relations respecting the origin of other substances. The following account, given to Captain Cook, respecting the green jasper stone, was somewhat similar. "They also," observes Captain Cook, "relate many fabulous and improbable stories concerning this stone (green jasper), one of which is, that it is originally a fish, which they strike with a gig in the water, and, having tied a rope to it, drag it to the shore, to which they fasten it, and it afterwards hardens into a stone. As it is fished out of a large lake, it is probable that it may be brought from the mountains, and deposited in the water, by means of the torrents. This lake is called by the inhabitants **Tavai Poenamoo**, or the water of **Green Talc**."

The fabulous and exaggerated accounts, then, of natives ought to be received with a certain degree of caution by travellers; and what I have previously related is not uncommon in **Polynesia**, and is well known to exist in **India** universally. **Bishop Heber** has the following observations regarding the proneness of natives to falsification, and every person who has visited **India** must have met with several similar instances. "The Indians can never tell a story without excessive falsification one way or the other. He (alluding to **Mr. Warner**, the magistrate of a district) had frequently cases of assault brought before him, in which the plaintiff at first stated that he had been attacked and nearly killed by above a hundred men, when it turned out that he had received a beating from one or two men, twenty or thirty others being possibly present (as in a village or market), but taking no part in the quarrel.

In the same way, if a house or boat is robbed, the complainant generally exaggerates the number of decoits to any multitude which he may think likely to excite the magistrate's attention and pity."—(*Journal*, Vol. I. p. 215.)

Travellers should, therefore, be careful not to depend on a single statement from a native, but to collect his information from different sources, and then ascertain its correctness, if possible, by actual observation. They are all ready to give information, and to make it as amusing as possible, particularly if they see the inquirer takes much interest in the subject; and as for veracity, that is of no manner of consequence, if "master seems but pleased." The two accounts which I have inserted respecting the mimi-há, shew their very accurate style of information. At New Zealand; the old chief, Taorata, however, whose exaggerating days were on the wane, gave his information in a more correct manner, and is the only one, indeed, that can be entitled to any degree of credit.

CASE OF RUPTURE OF THE UTERUS.

To the Editor of the London Medical Gazette.

SIR,

IF you deem the following brief statement of a case of ruptured uterus worthy of a place in your valuable journal, you will be pleased to give it insertion.

To those gentlemen who practise in this particular department of the profession, perhaps, the case may prove instructive. Fortunately these cases are of rare occurrence, though not so rare as many suppose. Besides the difficulty in getting post-mortem examinations, especially in the country, should such an untoward case occur in private life, even after a long and extensive practice, the probability is that it would be followed by loss of business, even if there had been no mismanagement.

I am, sir,
Your obedient servant,
J. SMITH, M.D.

Staines, May 24, 1881.

CASE.—Mr. Baker, a surgeon of this place, was called, a few days since, to visit a poor woman, 28 years of age, re-

siding in a neighbouring parish, in labour of her fifth child. It appears that the midwife was summoned at 9 A.M. and found the membranes ruptured, with the head presenting. The woman soon after felt faint, and complained of pains in the right side of the abdomen, with cramps and numbness in that part. Being alarmed, the midwife sent for Mr. B., who arrived in about a couple of hours, but found the patient dead: her dissolution took place suddenly, nearly two hours before. Fortunately permission was obtained to examine the body, which was performed the following day, by Mr. B., in the presence of Mr. Curtis, also a surgeon of this town, and myself.

A large quantity (nearly two quarts) of bloody serum was found in the cavity of the abdomen, and several small coagula were also observed.

On making an incision through the parietes of the uterus, a full-sized female infant, in a putrid state, was seen, with its head firmly impacted in the pelvis.

The fœtus being removed, the uterus was found to be ruptured near the cervix uteri, the laceration extending upwards towards the body of the uterus, and being large enough to admit the hand. The parietes of the uterus were remarkably thin in the vicinity of the rupture.

The child weighed about nine pounds and a quarter.

MR. GREEN'S LETTER.

To the Editor of the London Medical Gazette.

SIR,

WHILST the march of knowledge is causing such vast and important changes in the political world, it can scarcely be expected that the other departments of life should long remain in *status quo*. In the medical corporations, for instance, it is not denied, even by those who are usually considered great sticklers for the existing order of things, that the time is arrived when some alterations and improvements have become indispensable. My object in addressing you, is to advert to a part of a letter, said to be written by Mr. Green (for I have not seen the original), in which he has recommended, in his programme of im-

provement in our medical legislature, the exclusion of midwifery practitioners from the Council of the College of Surgeons. That a suggestion condemnatory of a highly-important branch of the profession should have emanated from any liberal-minded man in the present day, must, I am quite sure, excite, throughout the profession, feelings of astonishment and regret. The Council of the College of Surgeons, it is true, have always acted upon this principle of exclusion, not because there exists a bye-law which would really shut out obstetric practitioners, but from some unaccountable perversion of knowledge amongst those at the head of our medical institutions, a prejudice has been kept up, almost from their first establishment to the present hour, against all those who have chosen to embark in this department of medical practice. The bye-law of the College alluded to, as originally framed, simply states that every member of the Council shall be a practitioner in surgery; and it is not denied, even by the Council themselves, whilst the opinion of the profession, and that of the Attorney and Solicitor-General, in reply to the Apothecaries' Company, confirm this idea. The author of the letter, like most of the hospital surgeons, I presume has never practised midwifery, and, like them, he has been taught to consider it subordinate to the other branches; a doctrine founded upon a bigotted and false philosophy, as unjust to those engaged in its practice as it is injurious to the best interests of society. Either the practice of midwifery must be protected, or, at no very distant period, instead of one, we shall have a thousand instances of men combining obstetrics with some handicraft employment; but the formation of a separate board, *without* the walls of the College, will not, cannot be tolerated; it being universally believed that we have too many artificial distinctions in the profession already. The thanks of the profession and the public are justly due to the Obstetric Society. It has done much in the cause of humanity. Let, however, no "secret influence" check its progress, nor promised attention to the wishes of the profession lull it into security: above all, let its leading members now come forward, and use every effort to prevent a stigma from being again cast upon them, and to pro-

hibit the introduction of such monstrous anomalies into our medico-legal system as those recommended by Mr. Green:

I have the honour to remain, sir,
Your obedient servant,
A SURGEON.

May 25, 1831.

TALIACOTIAN OPERATION FOR RESTORATION OF THE UNDER LIP*.

By C. BRYCE, M.D.

In July last the Hakim-Bashi sent me, at Constantinople, the following singular case of destruction, by mortification, of the under lip and chin, which, from the success following the treatment pursued, seems worthy of notice.

The subject of it, a Turkish child, three years old, was attacked in June preceding with scarlet fever, that spread sparingly over the body, and in which the mouth and throat were aphthous but not ulcerated, disappearing by the use of a wine gargle and laxatives. The subsequent affection of the mouth was preceded by much fever and restlessness, and appeared in a small pustule on the left commissure of the mouth, which became rapidly black, and opened, discharging an offensive sanies; the gums at the same time were discoloured, and bled on the child's crying. The sore formed on outside of mouth spread quickly downward and laterally; and on the seventh day of the disease, when the patient was first brought to me, the whole of the under lip and chin presented a foetid, black, irregular-shaped slough, surrounded by a broad dark-coloured line of inflammation, marking the threatened progress of the disease on the integuments, the left cheek, and upper lip, which were painful and hard. The incisors of the lower jaw were loose, their gums and alveoli partaking of the affection, and by contact involving the lip and anterior edges of the tongue. The tongue was oedematous and loaded, but the fauces shewed no appearance of unhealthiness. The countenance had a peculiar livid colour; body dry and hot; pulse small and rapid; diarrhoea.

From certain circumstances, an emollient poultice to the sore, and frequent

* The Glasgow Medical Journal, May 1831.

ablutions of the mouth, and a few drops of laudanum internally, were all that could be recommended at this period. On the third day's visit, and tenth of the disease, observing the rapid progressive destruction of the integuments, the gangrenous parts were touched with diluted nitric acid, and sulphate of quinia with opium were exhibited. This external treatment, twice repeated in thirty-six hours, did not in any measure arrest the spreading of the mortification, which had now involved an inch and half in circumference of the left cheek and upper lip, and extended downwards under the chin. The diarrhoea was checked, and the child had enjoyed some hours of sleep, but was evidently sinking. It was now determined on to apply a fermenting poultice over the diseased parts, and to administer pills composed of quinine, camphor, and hyosciamus, in large doses, and allow 8 oz. of English porter daily. This plan, after forty-eight hours' continuance, shewed a marked improvement in the patient: the mortification had made no farther progress for the last eighteen hours; the slough was partially detached; whilst the look of the child was improved, with a slower and fuller pulse. The poultice and porter were continued as before, as were the pills, reduced in strength. In a few days the slough was totally separated, leaving a florid granulating surface. The integuments had assumed their natural colour and feel; four incisors and two canine teeth, with fragments of alveoli, were removed, as were also three small exfoliations from the under maxillary bone. The tongue had thrown off its slough, and appeared healthy.

The only treatment practicable for the moment, was to encourage granulations by spirituous applications, and support and diminish the loss of substance by compresses and bandages, whilst the general health of the child was improved by liberal diet and change of air. In six weeks a healthy cicatrix had formed, and the breach of continuity was much lessened by its contractions. It was now very evident that a complete, or even partial, reparation of the great destruction of the soft parts could be promised only by an operation, the necessity for which arose as much from the disagreeable deformity of the face as from the evident ill-effects on the system that the constant

flow of saliva occasioned. The writer was encouraged to this attempt by the very perfect success of a Taliacotian nose, made a short time before by him at Constantinople. The operation, in which he was assisted by the advice and skill of his intelligent friend Mr. Millingen, was performed by removing from the upper part of the throat a triangular portion of integuments, whose suitable form and size had been judged of, by measuring a model of the lip and chin adapted to the deficiency. This segment was now reflected, the twist being made immediately on the point of the chin, and its two angular points attached by ligatures to the commissures of the mouth, previously made bare by scarifications, as was also the whole of the former cicatrized surface. The flap was further supported by adhesive plaister and bandage, and the wound on the throat brought together by the same means. The parents were directed to keep the child in a recumbent posture, and to feed her sparingly on pap. The wound was looked at on the third day; on the fifth the dressings were changed, when adhesion had taken place on one side very completely, and on the other, although the ligatures had cut through, there was no opening of the wound: there existed no symptoms of excessive inflammation of the parts, or of irritation of the system. In fifteen days the cicatrices were perfectly formed, and the wound on the throat almost closed. On closing the mouth the artificial lip seemed very well adapted to the other, and even when partially opened retained the saliva, and very materially diminished the unseemliness of features. It cannot be yet determined whether or not the second set of teeth, with their alveoli, have been so much destroyed as to prevent the great help derivable from their growth, by supporting the flaccid flap. On the whole, the result of the operation was very satisfactory, especially at Constantinople, by exalting the practice and utility of surgery amongst the Turks, and encouraging them to submit to operations beyond the barber's province of bleeding and tooth-drawing.

Glasgow, 12th April, 1831.

ANALYSES & NOTICES OF BOOKS.

"L'Auteur se tue à allonger ce que le lecteur se tue à abréger."—D'ALEMBERT.

Essays and Orations read and delivered at the Royal College of Physicians; to which is added, an Account of the Opening of the Tomb of King Charles I. By SIR HENRY HALFORD, Bart. M.D. G.C.H. President of the College. pp. 192. Murray.

THIS is an exceedingly choice little volume—quite a casquet of medical gems—the select and matured collection of one who, to use his own classical phraseology, "qui suis ostendit quàm pulchra est atque honesta medicinæ cum literis et philosophiâ conjunctio." Yet, what we have here only makes us regret the more the absence of what we have not. Every one who will peruse the contents, we predict, will only find his appetite increased by what it fed on, and will lay down the book with regret that the author had not written more. Not that we can reasonably expect Sir Henry to be more of an author than he is; for if we take into account the prescribing department, probably he has covered, in his time, as much paper as Sir Walter Scott himself, and to as wholesome purpose;—but the samples of authorship which he has from time to time given the public, have created in us a longing—however vain—desire of possessing much more of his writings in this way. We are in the vein, it is evident, of the daughters of the horse-leech; it is not wise, we are sensible; nor should we be so unjust as to seek to impose additional labour on him whom we know to be one of the most diligent economisers of time in existence. No more, then, of remonstrance. He who adds "precept unto precept, line unto line, here a little and there a little," must ultimately have a structure formed which may come upon the world with unexpected, but not the less welcome, presence. We do not know that Sir Henry Halford will come upon us after this fashion; but, from his habits, and his unrivalled opportunities of gathering extensive information in his profession, it seems no improbable anticipation.

Meantime here, in this little fasciculus of choice commodities, we

have nothing that has not been published before, in one shape or other. The essays read before the College, Sir Henry, it is true, never before committed to the press; but their substance has been widely disseminated by the periodicals, and we appeal to the volume before us whether our pages have not given the fullest and most faithful account of those elegant productions hitherto presented to the public. The paper on "Tic Douloureux" will be found amply analysed in the *Med. Gaz.* vol. i. pp. 605-6; the "Illustrations of Insanity," in vol. iv. pp. 26 and 59; the remarks on the *Kavros* of Aretæus, in vol. iv. pp. 629-31; and the beautiful paper "on the Influence of some Diseases of the Body on the Mind," in vol. vii. pp. 600; 602. The other contents of the volume are two Latin orations, distinguished at once by the scholar-like finish of their latinity and the depth of their research: the account of the autopsy of Charles I. holden in 1813; and two other essays formerly published in the *Transactions of the College of Physicians of London*—one "on Climacteric Disease," and the other "on the necessity of caution in the estimation of symptoms in the last stages of some diseases." From this last, before we lay down our pen, we think our pains well requited by transcribing what Sir Henry says of a complaint which he considers very rare, though our experience does not quite tally with his in this respect; perhaps because the disease has become better known since the publication of his remarks directed attention to it. They have, however, so much freshness and of the air of originality about them, that we gladly transfer them to our columns.

"I will trespass on the patience of the College a moment further, whilst I mention one more disease, which, though it does not fall precisely within the class of those which are apt to manifest fallacious appearances in their last stages, yet is at once so dangerous and so soon fatal, that every physician should be aware of it—the paralysis of the kidney. It is not of frequent occurrence, I presume, as I have seen only five instances of it in twenty-seven years. The last was about two years since, and as it was an exact copy of all the others which had fallen under my notice, I will detail it shortly:—A very corpulent, robust farmer, of about fifty-five years of age, was seized with a ri-

for, which induced him to send for his apothecary. He had not made water, it appeared, for twenty-four hours; but there was no pain—no sense of weight in the loins—no distention in any part of the abdomen, and therefore no alarm was taken till the following morning, when it was thought proper to ascertain whether there was any water in the bladder, by the introduction of the catheter; and none was found. I was then called, and another inquiry was made, some few hours afterwards, by one of the most experienced surgeons in London, whether the bladder contained any urine or not? when it appeared clearly there was none. The patient sat up in bed and conversed as usual, complaining of some nausea, but of nothing material in his own view; and I remember that his friends expressed their surprise that so much importance should be attached to so little apparent illness. The patient's pulse was somewhat slower than usual, and sometimes he was heavy and oppressed.

"I ventured to state, that if we did not succeed in making the kidneys act, the patient would soon become comatose, and would probably die the following night; for this was the course of the malady in every other instance which I had seen. It happened so: he died in thirty hours after this in a state of stupefaction.

"All the patients who have fallen under my care in this disease, were fat, corpulent men, between fifty and sixty years of age; and in three of them there was observed a remarkably strong urinous smell in the perspiration twenty-four hours before death. Only one of them had complained of previous nephritic ailment. He had suffered frequently, and had passed several small calculi; but there was no difference in the progress of his symptoms when the paralysis had once taken place.

"If any water, however small the quantity, had been made in these cases, I should have thought it possible that the patients might have recovered; for it has often surprised me to observe how small has been the measure of that excrementitious fluid which the frame has sometimes thrown off, and yet preserved itself harmless; but the cessation of the excretion altogether is universally a fatal symptom in my experience, being followed by oppression on the brain."

These collected "Essays and Oration" must form a most acceptable treat to every well-educated physician in the kingdom, as well as to every gentleman who is ambitious of that general knowledge (on one of the most interesting of subjects) so indispensable to the accomplished member of society.

MEDICAL GAZETTE.

Saturday, June 4, 1831.

"Licet omnibus, licet etiam mihi, dignitatem *Artis Medicæ* tueri; potestas modo veniendi in publicum sit, dicendi periculum non recuso."—Cicero.

"DISTINCTION WITHOUT SEPARATION."

SINCE our first hasty notice of Mr. Green's pamphlet, we have had time to peruse it with more care and attention. We shall, therefore, without further preamble or apology, take leave to trouble our readers with some remarks which occurred to us as we went more deliberately through the performance. Of the performance itself on the whole, we may say that the design far surpasses the execution—we mean not the Utopian design of blending the three systems into one harmonious whole—though this is what the author intends in the first instance, if we may judge by the promise which he gives it in his title-page—but his design of applying a remedy to the present generally-acknowledged imperfect and unreformed condition of the College of Surgeons. As to the probability of effecting his ostensible main purpose, we entirely agree with him in considering "the separation of the different departments of the profession as a thing *jam consummatum*, and for the present at least irremediable;" and we only wonder at a subsequent page to find our author pointing out the practicability of a scheme so hopeless.

"I should advise that one faculty of

medicine be constituted, with such powers and administrative regulations as would render it efficient in promoting the science, and controlling the practice of medicine in all its branches, as a great interest of the state. Of this faculty, the colleges of physicians and surgeons, as representing the great leading distinctions of the profession, would naturally form the co-ordinates. In order to the admission of candidates to either, it might be required that they should have passed through the same course of study, which should be upon the most extended plan of a liberal and professional education, and that the examinations for ascertaining their proficiency, should be conducted by both; and that then from the candidate expressing his wish to enrol himself in either, as intending to devote himself practically to one or other branch pre-eminently, whether medicine or surgery, such additional proofs of competency might be required, as might shew that he was entitled to the desired privilege. And thus the practical distinction between medicine and surgery would be acknowledged, whilst their scientific unity would be preserved.

"Out of both would then naturally arise a third department, partaking of the character of each,—that of midwifery. This might have its separate board or institute, and the candidates for admission having the same basis of general education, would follow a similar rule for the enrolment of its members, by requiring a special skill and knowledge in this department of the profession.

"Next, as conjoining the functions of all three, the class of general practitioners would find its place; their institute forming a department of the faculty, which would in like manner regulate the admission of candidates, their education and qualifications, and watch over the affairs of their particular branch of the profession.

"Lastly, from the colleges or institutes of medicine, surgery, midwifery, and general practice, might be formed a medical convocation, for the purpose of deliberating on all matters relating to the profession at large."

Such is the plan of "Distinction without Separation"—the *chimerical* plan, we have no hesitation in so calling

it—which Mr. Green, one of the most respectable authorities in his profession, most inconsistently ventures, towards the end of his pamphlet, to propose.

But we cease to be surprised at this wavering infirmity of purpose, when we detect the error which is at the bottom of it. Mr. Green thinks that the first incorporation of the faculty was the establishment of the College of Physicians, in the charter of which he fancies he can perceive the germ of his own ultimate plan.

"If we look back (says our author) into the annals of the medical profession in this country, we shall find in the charters granted to the College of Physicians and to the Barber Surgeons, that the first attempt to its more effectual incorporation was not unpromising, and began with no inauspicious omen of future greatness. But it is no less true, that unfortunately at that time likewise were the Cadmean teeth sown, *mortalia semina dentes*, which were afterwards to start up in the armed forms of jealousy, rivalry, dissension, and separation, between the two important branches of physic and surgery. This might indeed have been prevented, had the College of Physicians acted up to their original charter; and had they continued to enforce its provisions, the right and duty of practising surgery being vested in them, the present College of Surgeons, or its humbler predecessor, the Corporation of Surgeons, would not probably have existed.

Now here is no trifling mistake. The genuine historical truth is, that the College of Physicians was far from being the first incorporation of the medical profession; distinction *with* separation had taken place in England many years before that event. The barbers were incorporated so early as the reign of Edward IV.; and it therefore could not be, nor was it intended, that the privilege to practise surgery, granted by Hen. VIII. to the Physicians of the new College, should interfere with the institution and the rights of barber-surgeons. The charter of Henry VIII. in conferring

the privilege of surgical practice on the incorporated physicians, never contemplated, nor does it once express the intention, of depriving the already existing incorporation of surgeons of the privilege of *distinctly* practising their profession; and we should not fail to recollect that by the statute (3 Henry VIII.) prior to the charter (10 and 14, Henry VIII.) the distinct qualification of both surgeons and physicians is prescribed.

"The barbers practising surgery associated themselves, and formed one of the guilds or companies in London; and at length, in the first year of the reign of Edward the Fourth, obtained a charter to legalise their corporate capacity, and to give them authority over the rest of their mystery in and about that metropolis*."

It is in cases like this that history, "that old almanack"—and particularly the history of our profession, is the best safeguard against error in laying down plans of medical reform.

We gave, in our former analysis, a large extract from the pamphlet, tending to shew, with much ingenuity, that there exists a special distinction between such corporations as those of the medical profession and those for the regulation and government of trades and mercantile interests. But the distinction is more ingenious than solid: in fact, Mr. G. here labours under a great mistake; he fancies he discovers what has nowhere any existence; for nothing can be more analogous than the forms and practices of guilds, such as those alluded to, and the principles of incorporated scientific societies, more especially with reference

to their *exclusive* character. How Mr. Green should have been induced to attempt to draw such a line of demarcation, it is not easy to conceive. Perhaps the idea of a perfect corporation, conveyed so mystically in the following passage, flashed in an unlucky moment across the author's brain, and with its false glitter beguiled him into the delusions of castle-building.

"Appointed, therefore, by the highest authority, and exercising *an influence which evermore works descensively till as the product of its own subliming and assimilative action a correspondent ascension gradually takes place*, a college thus framed perfects itself at length into a circle, ever working from above, yet ever returning on itself (!) Hence it is capable of embracing all the above-mentioned interests in perfect harmony and subordination: whereas in a guild or directory, chosen by the votes and major number of a body already formed, the last and lowest of these interests alone could be pretended or proposed for their efforts and their vigilance, by virtue of any right derived from the electors."

There is, we suspect, something like free-masonry in all this. Or if it is to be taken as an argument illustrative of Mr. Green's views of a perfect system, why may not somebody else put forth some other figurative and mysterious emblem of his conceptions on the subject? If Mr. Green broaches the *circle* as typical of a perfect College, why may not another speculator insist upon the *triangle* as an equally correct, if not a far more just representation of the same thing? It is for the reader, however, to decide upon their respective merits, or their ridiculous folly.

But however this be, the author proceeds to apply his argument of (if not in) a circle to the designs and object of the present College, though, as it will be seen, not with much success.

"The designs and object are: first, the securing the public, their fellow-subjects collectively, against the mis-

* See Willcock on the Laws relating to the Medical Profession, p. 16. In the Appendix to the same work, p. clxvii. may be seen the charter in question, which, after reciting that there was a mystery of barbers then practising surgery in London, incorporates the said mystery on the ground of the mischiefs that would otherwise arise from ignorant pretenders, and the necessity of restraining such persons. And the new company was furnished with all the requisite privileges—of making bye-laws—superintending all surgeons—punishing them when necessary—granting licenses, &c.

chievous practice or practices of dishonest or ignorant pretenders; to provide for the public, criteria of competence, skill, and integrity, such as even the public shall be capable of distinguishing and applying; and this is a trust delegated to them in their first appointment from a higher power, which is itself the rightful representative of the collective interest of the community. *Individuals, electors, can confer no trusts, but such as are vested in themselves.*"

This last is a mere assumption, or if not, it is certainly not to be understood in the ordinary acceptance of the terms. And as to the power of regulating the profession, and protecting the public from ignorant pretenders, the statement of our author is not entitled to higher credit: any one who is not confounded with his *circular argument*, must allow that the power in question may be as well derived from the general elective voice of competitors, proceeding from below upward, (to use the figurative language of Mr. Green) as from an authority which was distantly, and only in the first instance, endowed with that power itself. It might probably be even far less objectionable if it proceeded from the *perpetual* interference of an external and superior authority.

What the author says at a subsequent page concerning the practical proofs of the excellence of the existing system, might be very readily replied to, by pointing out the deficiency of the inference. "That it has done *much good*, I cannot doubt, in producing a better educated and more efficient body of surgeons, in rendering them more anxious for professional character, and in raising them in the public estimation*."

That the profession of surgery has been greatly advanced by the honourable character, and the scientific attainments of its leading members, and by

the influence of public opinion, is not to be questioned; but whether this is owing to the system of delegated appointment (*self-election*, we were going to say, but that Mr. Green has branded the term) in the government of the College, is very far from being a clear point. How many favouring circumstances must concur before there can be had a Council, calculated to possess the confidence of the profession at large! Such a Council as we entirely concur with the author in pronouncing that the present one ought to be! But let us only imagine a College of the like nature starting into existence for the first time at the present day—and the power of the Crown being about to be conferred on the members of the first Council, to be by them delegated to other members as vacancies might occur—what an invidious proceeding would it not be deemed, and to what clamour and opposition might it not be expected to give rise?

It is amusing to find Mr. Green disposing of the question of the irresponsibility of the Council *by assuming the fact, and asking another question.*

"Have they (says he), in the supposed absence of all wholesome check and control, abused the powers with which they have been entrusted?" We will take the liberty of asking a question, too. Is this a fair answer of Mr. Green's? Who is so simple as not to see that the real inquiry is, not whether the individuals composing the Council are honest and honourable men, but whether they ought to be responsible or not? To the direct reply to this question the author, it is true, comes at last; but not till after much *fanfaronade* of the above sort; and when he does come to it, unluckily it is only to exhibit his superficial acquaintance with the details of his subject. "So far," says Mr. G., "from the Council being irresponsible, that, according to the

* Distinction without Separation, page 24.

laws of England, the King, who is the founder of all corporations, is constituted by law the *visitor* of the same; and he exercises *this jurisdiction* in the Court of *King's Bench* (Chancery), where all misbehaviour of corporations are (not) inquired into and redressed; and which, upon a proper complaint and application, can prevent and punish any injustice of which they may be found guilty." So much for the author's specimen of his research into the laws of England. We have taken care, however, lest the reader should be misled by Mr. G.'s high authority, to insert, within brackets, one or two little words that may serve to obviate any egregious blunder.

There is a paragraph near the conclusion, of which we should be unwilling to deprive the reader.

"If then, I have argued with any effect, I apprehend the result of our inquiry will be, that the constitution of the college is, in all essential circumstances, *adequate* [Adequate! when it enjoys the name of power which it cannot exercise.] *to the purposes for which it was intended*: with some exceptions, doubtless, respecting the extent of its jurisdiction, and such improvements in its regulations as the improved state of the profession may require. But still I fear that my arguments, even if they were stronger than they are, would not prevail with, and would fail in convincing, those who desire a larger share of influence and power; and so far I might be disposed to go with them,—not perhaps in agreeing with them as to the remedy, but in deploring as an evil, in the present constitution of the college, the *want of sympathy* or communion between the members at large and the governing body. And I hold it to be a legitimate object of inquiry, whether there are any means of producing (consistently with the design of the institution and the welfare of the profession) a greater confidence in the college, a closer union of its members, and a probable extension of its influence and benefits? And though I must still contend that, *having sought* and accepted the distinction of

membership under a perfect knowledge of the forms and bye-laws of the college, the general practitioner has no equitable grounds of complaint; yet as exclusion, even where it is not reasonable, is too natural a source of dissatisfaction, it might perhaps be possible so to modify the charter, as to satisfy the excluded, and thereby strengthen the college without interfering with the principle of its foundation."

It will be seen by the preceding passage, that Mr. Green's notions are of a very aristocratic caste. His attachment to the *jus divinum*, we fear, will be strongly surmised from the last clause, upon which we shall merely take leave, with great respect, to observe, that it implies rather a palpable mistake of civil rights. A college of scientific men, appointed to examine those who are to be associated with them, not for the purpose of creating an honorary society, but of providing for the welfare of the nation by excluding the ignorant from the privilege of practising in a particular profession, cannot impose restrictions. It is their duty merely to ascertain who is qualified and who is not. They confer no favour by their admission.

We must conclude our remarks on the pamphlet with noticing a few points in the plan which Mr. G. suggests for new-modelling the charter.

"2. That the Supreme Council should consist of the President and twenty Members, who should have the entire management of the affairs of the College, and the conducting of examinations."

In order to escape the charge of absurdity here, surely the Supreme Council and the Examiners ought to be distinct, under the proposed system; otherwise the Examiners are irresponsible.

Clauses 3, 4, and 5, we published among our former extracts, and noticed all that was worth notice in them—namely, that they insist peremptorily

on the exclusive system and the self-appointment of both the Councils.

Clause 6 is worth extracting.

"That the General Council should *choose auditors* of the accounts, and *might suggest* to the Supreme Council at their meetings any measures for the benefit of the profession. And further, that *all public acts* of the Supreme Council should be communicated to them."

No very heavy duties these, one should think, for the members of the General Council! They are to choose auditors—to suggest topics to the Supreme Council—and, in return, we suppose, to be apprized of all *public acts* performed by the latter! Yet clause 8 provides that there shall be a class of honorary members of the General Council; as if they were not to be all *honorary* for that matter.

In clause 9, our author speaks of general practitioners who have given up the practice of midwifery and the dispensing of medicines. This is certainly a nice distinction—*without separation*.

The last clause we shall extract entire.

"13. And lastly, that the Charter should distinctly define, express, and declare, the power of expelling all those who, by dishonourable practices, have rendered themselves unworthy the character of members of a liberal profession, whether it be by the use of secret remedies, by advertising, by partnerships in trading concerns, by calumnious reports of their professional brethren, breaches of professional confidence, or *whatever else may be considered derogatory to a professional character*."

This, it must be admitted, is a very proper arrangement of business, to employ the auditors withal—and eminently advisable, if it be an object to provoke a *mandamus* every term. And the standing Counsel and Solicitor to the College ought surely to use all their influence to secure the last item among the sundries.

DR. DAVIS.

WE understand that Dr. Davis complains of the remarks upon him which appeared in our last notice of the London University. Now, as we are desirous of doing justice to all, whether or not they may be of the same way of thinking as ourselves, we deem it right to state, that in comparing some of the other professors with Dr. Davis, we did not mean the contrast to extend either to his private character or professional attainments;—what we did and do protest against, is *exclusively* the part he has taken in medical politics.

LECTURES AT THE COLLEGE OF SURGEONS.

WE understand that no lectures are to be given this season. It is said that the Council, satisfied with having procured new bye-laws, and having the "rule" made absolute, did not intend to have proceeded further; but the headstrong folly of Wakley evidently leaves them no alternative. It is the opinion of their law advisers that the theatre should not be re-opened *pendente lite*.

FORGERY AGAINST DR. O'SHAUGHNESSY.

THE subjoined letter on the subject of the forgery which recently appeared in the name of Dr. O'Shaughnessy, speaks for itself, and renders any remarks of ours regarding it unnecessary. We shall only say that it would be difficult to imagine a more complete contrast than his letters present to the vulgar and intemperate production in his name, which we unsuspectingly admitted into our pages. We observe that Dr. O'Shaughnessy alludes to the possibility of his having recourse to law proceedings against the perpetrator of the outrage; but this, we think, would be giving to the affair a degree of importance it does not merit. He has come

clear, and without reproach, from the transaction, and cannot possibly suffer in any respect. Indeed, one advantage at least he has gained, for a false friend is more to be dreaded than an open enemy; and if we might venture to advise him, it would be that he should think himself fortunate in the discovery, and take no further trouble about the matter.

To the Editors of the London Medical Gazette.

GENTLEMEN,

I HAVE cautiously examined the several documents you have had the goodness to submit to my inspection, and which you suppose to constitute sufficient evidence of the author of the recent forgery. The comparison thus instituted, together with some proofs of a collateral nature, which I myself have accidentally become possessed of, compel me to participate fully in your opinion, and do not permit me to entertain the slightest doubt as to the source from whence the forgery proceeded.

What course I may adopt towards the treacherous *friend* who thus wantonly attacked me, must be determined by circumstances over which I have no immediate controul. I should not hesitate for a moment to proclaim his name to the profession as a warning to those who have the misfortune of his acquaintance, were I not informed by my legal adviser that such a mode of proceeding would materially interfere with the ulterior steps it may be necessary to pursue.

Before I conclude, I consider it my duty to hear the amplest testimony to the candid, honourable, and efficient manner, in which you have contributed to effect the elucidation of this disgraceful transaction.

I have the honour to be,

Gentlemen,

Your obedient servant,

W. B. O'SHAUGHNESSY, M.D.

Walworth, 31st May, 1831.

CHOLERA AND FEVER.

A REPORT has been very prevalent during the past week that cholera, of the same character as that prevailing in the north of Europe, had made its appearance in some of the hospitals of the metropolis nearest the port of London.—We have instituted the necessary inquiries, and find the rumor to be without any foundation whatever. Probably it may have originated in the circumstance of a fever, of rather severe character, being at present common in various districts, and among others in the neighbourhood of the river. An interesting account of the disease, as it shewed itself in the hospital ship *Grampus*, will be found in our present number.

COURSE OF THE CHOLERA IN PERSIA AND RUSSIA.

WE have learnt by the last arrivals from St. Petersburg that one of the most celebrated and intelligent of the physicians in the Russian service has been employed in tracing the progress of the cholera, and the inference at which he has arrived is, that the disease is propagated exclusively by contagion, and not in any degree by atmospheric influence. In the spring of 1830 it appeared at Corason, the residence of Abbas Mirza, in Persia, where several of the Russian mission died of it, and Prince Dolgonrowky, the minister, narrowly escaped after a severe attack. In July it broke out in the Russian province of Schirvan and Bacon; whence it found its way by land to Tiflis, and by sea, from the port of Bacon to Astracan. In these towns it made its appearance nearly at the same time, viz. about July 20th. No precautions were taken, and it extended rapidly throughout Georgia, always following the course of the principal roads; and in no instance did it appear in any

village, or in houses, unless individuals from the infected towns visited them. A Moravian village, almost in the immediate line of road, thus entirely escaped, while the disease raged around it. Alarm having been excited at Bacon, many persons fled along the Volga, and carried the disease with them, which appeared at Jondayersk on the 22d of July; at Krasnoyar on the 25th; at Tzarilzin on the 6th of August; Donbooka and Saratoff on the 7th; at Khvalnisk on the 19th; Novogorod on the 27th; Koshoma on the 3d of September; Yaroslaff, 6th; and at Rybinsk on the 10th. In all these places, the first victims were navigators of the Volga, or others arrived from places where it already raged. A Cossack, sent to buy food at Doubooka, on the Volga, died on 7th, after his return to Katchalinskaja, on the Don; and thence the disease rapidly spread through the Cossack villages.

The first deaths at Novitcherkaak, the principal town of the Cossacks, took place on the 18th of August; and at Tagonrog, September 9th.

From Saratoff multitudes of the inhabitants escaped again into Persia, but the disease followed them, and it was carried to Moscow by a student from Saratoff, whose servant had died on the road, and who was himself the first victim in the Russian capital. All communication was instantly cut off between the military school at Moscow and the rest of the town; not one case of cholera occurred in the establishment. In no instance was the propagation of the disease traceable to goods; it was dependent on the actual presence of individuals labouring under it. It never broke out after a quarantine of twenty-one days; and, in the great majority of cases, the attack took place within a week after exposure to the contagion.

KING *versus* WAKLEY.

To the Editor of the London Medical Gazette.

SIR,

FROM the manner in which the defendants concerned in the late trial are mentioned in the leading article of the last number of the *Lancet*, I feel it to be my duty explicitly to state that the remarks there made have not my concurrence.

By inserting this letter you will much oblige,

Your very obedient servant,
T. KING.

10, Hanover Street, Hanover Square,
May 31.

COLLEGE OF PHYSICIANS.

Monday, May 30th, 1831.

SIR H. HALFORD, PRESIDENT, IN THE CHAIR.

Observations on a Fever prevalent in the Spring of the present year. By Dr. Roupell.

THE conversazione, on Monday evening, was numerously and brilliantly attended, as usual. The following will be found to be an ample report of the papers presented on the occasion—the first of them read by the Registrar:—

The author being physician to the Floating Hospital, moored off Greenwich, has had ample opportunities of observing this complaint, and the seamen whom he has had to treat seem to have been particularly obnoxious to it, predisposed by their thoughtless improvident character leaving them subject to many privations, and by the unwholesome state of the neighbourhood of Greenwich—notwithstanding the Institutions established in various parts of that eastern suburb of our city. There is in general a pretty good supply of fever (of no very peculiar character, however) in the quarter in question; but during the present spring the number of cases, as well as the special features of the disease, claimed particular notice. A principal symptom in those attacked was sudden prostration of strength, so decided and severe that even the stoutest, in twenty-four hours, would be unable to stand without support, or

turn unaided in his bed. The countenance was generally dusky, in those presenting themselves for admission, but sometimes flushed and sometimes pale. More marked peculiarities were presently observed: a brilliancy of the eye, in which there was often a strange wildness, a fixedness and intensity of gaze, strongly contrasted with the other signs of debility. The intellectual functions were affected. On questioning the patients about their sensations, some denied that they were at all ill, while others were immoderately depressed, bursting into tears and declaring their conviction that they should surely die. Some, when questioned, maintained for a time an obstinate silence, and then gave an incoherent answer in a loud voice and a maniacal manner. Their disordered feelings were variously described: torrents in the ears; flashes of light before the eyes; fire on the brain; thoughts rushing; images passing in rapid succession. The most intimate acquaintances were not recognized; memory in some (though without loss of consciousness) so completely gone, that no history of the complaint could be obtained; many doubted their identity, and one *thought he had died*. The pupil was dilated; the conjunctiva, in most cases, of a rose-red hue; the tongue broadly and thickly coated with a dirty-brown fur; the thirst was intense; the stomach bore food, though no appetite was felt; vomiting was rare; hiccup frequent. The bowels were usually constipated, but when open the evacuations passed involuntarily; and the urine frequently was detained in the bladder from paralysis of its muscles. The pulse very weak and infrequent — often intermitting. While the pulse was being felt, the flexor muscles of the hand were noticed to twitch considerably. The muscles of the mouth, too, especially after speaking, exhibited the same appearance of twitching. The heat of skin generally was not above the common standard; that of the forehead, however, was increased. A rash was perceptible in general over the lower extremities, resembling strongly the eruption in measles, but not presenting the crescent-like aspect, and occurring in elderly persons and those who had already had rubeola. Some had true petechiæ. The pains which seemed to be most distressing

were those of the limbs and the back of the neck; headache not so severe.

The general progress of the complaint was this:—Languor; pain in the head and limbs; horripilation, with chilliness; depressed pulse; despondency; watching, with confusion of ideas lasting many days. The next stage was marked by more active cerebral disturbance, by inflammation of the lungs, and the appearance of rash, or petechiæ; with little reaction of the heart and arteries. The third stage, by partial paralysis; coma; subsultus; dry tongue; thick sordes on the teeth; copious discharges of blood from the bowels; fixedness of jaw; cold extremities; death.

Of the successful cases, the majority terminated between the eighteenth and twenty-fourth days of the disease, which seemed to be the critical periods, as death, in the unsuccessful cases, generally occurred on the same days, though the seventh and the fourteenth were fatal in one or two instances. Perspiration, when it did occur in the course of the complaint, seemed to give no relief.

Convalescence was slow; giddiness, deafness, and debility, remaining after the other symptoms had declined. The parotid glands, too (or the neighbouring tissues), in five patients, swelled and discharged pus; the inguinal glands in one, and the axillary in another. One man lost part of the greater number of his toes; how much of the foot will remain to another is yet to be decided; in both, heat and redness, with acute pain, speedily gave way to mortification.

The strong tendency to hæmorrhage during the complaint was remarkable: it occurred spontaneously from the nose and bowels, in some cases, and the leech-bites were observed to bleed copiously.

With respect to treatment: those were bled from the arm, or cupped, or leeches, in whom the cerebral symptoms were most urgent, who had most strength, and in whom the conjunctiva was diffused. Those with sore throat, weak pulse, and slight head affection, took subcarb. ammon. in camphor mixture or bitter infusion, or in the form of effervescing saline draught. Sulphuric ether, with dilute spirit of Mindererus, was given to those who, with weak pulse and cold skin, had an excited nervous system; blisters, at the same time, were applied between the shoulders and nape

of the neck, and opiates were exhibited at night. Cooling acid drinks were allowed.

Bleeding with leeches was found to be the most beneficial mode of depletion; general bleeding was in general ill borne.

The benefit of mercury was very doubtful, as the mouth, in some, became sore without any abatement of the symptoms, whilst many and severe cases did well under its free and continued use. Emetics in the very early stage of the complaint had a marked good effect, but at later periods were perfectly useless. In the way of purgatives, the powder recommended by Rush—ten grains of calomel and fifteen of jalap—was most suited to Dr. Roupell's patients.

The total number of fever cases admitted from the 1st of January to the 18th of April, was 119. Of these the number in whom the disease assumed the peculiar type just described, was 75; of whom twelve died; but Dr. Roupell calculates, upon a nicer scrutiny, that the mortality was but 5 out of 68.

The appearances on dissection confirmed the opinions which could not but be formed with regard to the inflammation of the membranes of the brain: turgescence of vessels; great vascularity; effusion of serum; and deposition of solid lymph, varying from a quantity only sufficient to render the arachnoid opaque, to the thickness of a line. The effusion of lymph was, in all cases but one, between the arachnoid and pia mater, to which, in the excepted case, it was external.

It would be difficult to procure more positive contradiction to the theory of Broussais than these cases afforded. The mucous membranes of the bowels not only bore no marks whatever of inflammation, but there were no enlarged glands—no discolouration—no softening—no thickness—nor ulceration of any sort. On the other hand, to those who stop short and only see one disease, local inflammation, and calling fever "meningitis," insist upon the only cure being free depletion—to those Dr. R. replies, that he was himself at first misled by the theory, but upon practising in accordance with it, and opening the temporal artery in a case or two which seemed to require such a step,

temporary benefit was certainly derived, but sudden phrenzy, and rapid sinking, in these instances, soon satisfied him that he had more to treat than simple inflammation.

The blood was of a loose texture—often did not cup or buff. The pulse never rose during or after bleeding.

Peculiarities such as those described—particularly taking into account the rash, and the history of the complaint—clearly convince Dr. Roupell of its specific nature, and that it is well worthy of more ample discussion.

"On the Treatment of Gout." By SIR H. HALFORD.

After the preceding paper had been concluded, the learned president read a short paper of his own, containing some observations on this subject.

Sir Henry remarked that he felt as if some apology were necessary for directing the attention of those present to a complaint on which so much had been written as gout; but, said he, "I rest assured that you will receive in your heart the result of my long experience in the treatment of that disease, and that if I state to you that there is no malady to which I am called upon to administer that I prescribe for with so much confidence in the resources of our art as for gout—formerly that opprobrium medicorum, you will give me willingly a few moments of your attention." On the various seats of gout he would not dwell: in fact, it was to be met with in almost every part of the human frame. Some believed they had seen it in the eye, and he had himself witnessed it in the kidney, in the urethra, in the prostate gland, and in the tonsils. One of his colleagues had suffered from it in these, and he mentioned an eminent physician in the country so harassed by it, and so disappointed by finding no relief from the usual remedies of quincy, that at length he plunged a lancet into it, in case any deep-rooted collection of matter had taken place. None followed, but the gout was dislodged, and in a few minutes made an attack upon the great toe. The angina disappeared, but the disease ran its usual course in its new situation.

Among the various remedies for gout, Sir Henry's dependance rests on colchicum. Under ordinary circumstances of gout in the extremities, he does not

commence its use immediately, but postpones the antidote till the disease shall have become fixed: he then directs the wine of the root, prepared according to the formula of the pharmacopœia; and from this he expressly declared that he had not known "a single instance of any untoward effect." Frequently it removes the complaint without the manifest increase of any secretion: sometimes it causes perspiration, and sometimes acts as a diuretic; but so far is it from being apt to purge violently, as the *eau medicinale* was wont to do, that it is necessary in most cases to add a little sulphate of magnesia. The following is Sir Henry's prescription:—A saline draught, with camphor mixture; a drachm of syrup of poppies; and not exceeding from thirty-five to forty-five minims of the *vinum colchici* at bed-time. In the morning the draught to be repeated, but with a little modification, viz. only twenty-five minims of the *colchicum* wine and half a drachm of the syrup of poppies, while to this is added a drachm of Epsom salts. This method is to be pursued for several successive days, and then followed up by a pill, composed of three grains of an acetic extract of *colchicum**, and one or two grains of Dover's powder, with a like quantity of compound extract of colocynth, the whole being terminated by a mild purgative. "It had been argued," said Sir Henry, "that it had been laid to the charge of *colchicum* that its good effects were but temporary: now, even it were so," he asked, "whether three or four attacks, of so many days each, were to be compared in the extent of suffering they produced, with the weight of a six weeks confinement, spring and autumn, which used to be the case before the virtues of *colchicum* were known?" In addition to which, the evils resulting from the formation of chalk stones in the joints are now almost entirely done away—by the controul exercised by this medicine over the inflammatory stage of the disease. But, besides, Sir H. Halford's experience is against the correctness of the opinion that gout returns more frequently under the use of the *colchicum*: on the contrary, when the vinous infusion has been followed up by the acetous extract, he holds himself justified in asserting that

the attacks are removed to as long intervals as they used to be when left entirely "to patience and flannel." The learned author of the paper did not, however, recommend the above as a specific treatment to be adopted in all forms and varieties of gout, but as one of general application, requiring to be modified with varying circumstances. Occasionally some light preparation of bark is required in worn-out frames, to re-invigorate them after the *colchicum*: occasionally a blue pill is of service in restoring the flow of bile when it has become deficient. Of the different preparations of *colchicum* an infusion of the root in sherry, has appeared to Sir Henry to be decidedly the best: that made from the seeds is apt to excite insupportable nausea, and when this has once happened, it is in vain that you urge a patient to try it again: he prefers the acute agony of the disease to the distressing misery of the remedy.

The learned President proceeded to state that *colchicum* was not a new medicine, having been used in the sixth century, under the name of *hermodactyle*. Being desirous to ascertain whether this was identical with our *colchicum*, he had procured some from the market at Constantinople, specimens of which were laid on the table: they appeared to be the same as the common meadow saffron, and Sir Henry is about to make trial of them in gout, in the same manner as *colchicum*.

In preventing the recurrence of the gouty attacks, by far the best remedy has appeared to be a few grains of rhubarb, with double its quantity of magnesia, every day; or some light bitter infusion, with a little tincture of rhubarb, and fifteen grains of the carbonate of potash, if the digestive powers were considerably impaired. Depletion, either by bleeding or strong purging, are to be avoided. But far more depends on the patient's management of himself than on any medicines, in keeping the malady at bay. He must live moderately, and dine earlier than the present fashion enjoins. Gentle, but regular exercise, and a mind free from anxiety, and not exhausted by deep study, are also among the precautionary measures; and in addition to these, the patient must be chaste. Pliny alludes to this, and uses a remarkable word in expressing it—*sanctitas*.

* Made by evaporating an infusion of the root in vinegar.

In concluding his valuable and interesting remarks, the learned President stated that he had repeatedly seen the waters of Aix-la-Chapelle of much use in restoring the weakness of the knees and ankles, brought on by repeated attacks of other disease.

ROYAL INSTITUTION,

Friday, May 20, 1831.

CAPT. J. J. CHAPMAN, R.A. & VICE-PRES.
IN THE CHAIR.

Mr. Robertson on a New Practice of Painting, which unites the Force of other modes with Extreme Durability.

THE new practice of painting announced by Mr. Robertson in the above terms, is an extremely ingenious, and we should think would become a very important modification of the art of painting in water colours, by which they may be used as body colours, and by which they may be, in any parts which require correction or alteration, painted over and over again, as is the case with oil colours. This is effected by washing the parts painted with a solution of isinglass in boiling alcohol, which fixes the colours and renders them permanent, so that they do not interfere with nor affect the subsequent coats; it is likewise an important point as to the durability of the painting, that it should, when completed, be washed over with the alcoholic solution of isinglass, and subsequently varnished with some of the better spirit varnishes. Mr. R. particularly recommended the white lac varnish made by a very ingenious and scientific gentleman, Mr. George Field, of Isleworth; with which two coats, and lining the back of the picture with tin-foil, it would all but defy the tooth of time. There was much matter interesting to artists in this lecture, but which it does not import us minutely to detail. We must not, however, omit to state, that the copies from the National Gallery, and the Devonshire Collection, as well as the original picture painted by Mr. R. of Cupid and Psyche, with the various portraits of Nel Gwynne, Leigh Hunt, &c. are sufficient proofs of the capabilities of this new practice, as well as of the ability of the artist; and as a further illustration

we must be allowed to state, that one of these pictures being sent as a water colour painting to a public exhibition in this town, was refused admission by the examiners on account of its being supposed to have been painted in oil—no mean compliment to the performance.

In the library were numerous literary and other curiosities, among which we may mention an original letter of Dryden, the poet; a fac-simile of a manuscript of Anacreon; and the first English and French grammar, compiled for the instruction of Mary, sister of King Henry VIII., by Jean Palsgrave, 1530.

There were also on the table some of Davy's protectors from the bottom of the Magicienne, which has been lying in harbour several years; specimens of cellular bullets, &c. &c.

Minter's adjusting chairs, of which there were several in the library, are certainly the most luxurious we ever indulged in; and what is much in their favour is, that the machinery is so simple, that there is no fear of its derangement.

The announcement for Friday 27th May is, "Mr. Britton on the old Domestic Architecture of England."

Friday, May 27, 1831.

SIR GEORGE DUCKETT, BART. VICE-PRES.
IN THE CHAIR.

Mr. Britton's Remarks on, and Illustrations of, the old Domestic Architecture of England,

Formed, as might have been expected from so celebrated and industrious an antiquary, a most interesting subject for this evening's discussion; and the numerous drawings, diagrams, and models, which he exhibited, of the all-but-extinct and almost-forgotten baronial castles, houses, hovels, &c. of our ancestors, although they conveyed better than any words alone could do an idea of the architecture of the olden times, preclude necessarily from their nature any detailed report.

In the Library were numerous specimens presented by Mr. George Bennett, late surgeon of the Sophia; and among the rest the *Simia syndactylus*, or Ungka ape. It originally came from the Menangkabau country, situated in the interior of Sumatra, and was pre-

sented at Singapore to Mr. B. who preserved the animal alive until the 30th of last March, when being detained for some time at the entrance of the Channel by prevailing easterly winds, the animal died from the effects of cold. Had it survived, it would have afforded an interesting comparison with the orangutan and chimpanzé at present alive in London: to the latter animal it bears a very close resemblance. Its movement on a level surface was, we are informed, invariably in the erect position. The other curiosities consisted of cloth made by pressure between stones from the inner bark of the *Broussonetia papyrifera*, clubs, &c. from the South Seas; and a specimen of the curious tree, the *Horoeke* of New Zealand, brought also by Mr. B. who has recently returned from those countries. There were likewise a model of a Malay prow; and a fragment of the beach of the island of Ascension, which, instead of sand, is formed of innumerable fragments of partially-rounded shells, cohering into a mass, and thus appearing like an imperfect oolite.

The announcement for Friday, the 3d of June, is, "Mr. Ritchie on Electricity as the probable cause of all the phenomena of artificial and terrestrial Magnetism."

HERPES ZOSTER.

To the Editor of the London Medical Gazette.

"In herpes zoster, topical applications do more harm than good."—*Chomel*.

SIR,

SOMETIME during the voyage of Captain Beechey I was visited by this cutaneous malady, and though the itching was considerable by day, it became insufferable when I retired to my hammock, and for several hours prevented all approaches of sleep and refreshment; till, by reflecting upon what might be the cause of it, I fell upon the expedient of a moist cloth, which, after a few occasional applications, by relaxing and cooling the parched cuticle, assuaged the vexation, while I made preparations to enjoy the benefit of rest.

Yours, &c.

G. T. LAY.

Hampstead, May 28, 1831.

APHORISMS IN THERAPEUTICS.

After the reduction of a strangulated hernia, never give purgatives.—*Lisfranc*.

The vomiting and purging produced by a large dose of tartarized antimony, ought to be treated by means of a still larger dose of the same medicine.—*Louis*.

Blisters applied to the chest in pleurisy with effusion, or in pneumonia with hepatization, are hurtful.—*Idem*.

In typhoid affections, paleness of the surface, extreme weakness, feebleness of the febrile action, and the bowels acting seldom, indicate the use of tonics.—*Idem*.

Chronic pulmonary catarrh seldom resists the use of balsams and resins.—*Cagal*.

The root of the polygala, so useful in chest affections, has a specific action on the eighth pair of nerves.—*Recamier*.

BOTANY.

To the Editor of the London Medical Gazette.

Hoxton, May 30, 1831.

SIR,

It may not be unacceptable to some of your readers, especially to those who take much interest in botanical inquiries, to be informed that the beautiful cryptogamic plant, *Marchantia polymorpha*, is now growing luxuriantly on a wall at the side of the Lamb public-house, Kingland Road. It grows amongst mosses, but is easily distinguished from them by its broad-lobed frond, which is of a most beautiful light green colour, upon which are placed two kinds of pedunculated target-shaped capsules (probably male and female) and small sessile-fringed cups, containing very small lenticular bodies, of a much darker green colour than the frond from which they seem to be produced.

I am, sir,

Your obedient servant,

J. W. H. P.

COLLEGE OF SURGEONS V. WAKLEY.

Those who have any thing to do with shorthand writers must be fully aware how difficult it is to get any thing at all voluminous out of their hands, and how entirely editors are at their mercy. The pleadings connected with the criminal information against Messrs. Wakley and Co. having run to considerable length, we have been unable to procure them in time for the present number; any thing worth noticing which they may contain, we shall lay before our readers next week.

W. WILSON, Printer, 57, Skinner-Street, London.

THE
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SATURDAY, JUNE 11, 1831.

OBSERVATIONS

ON THE

APPLICATION OF CHEMISTRY TO
PHYSIOLOGY, PATHOLOGY, AND
PRACTICE.

By WM. PROUT, M.D. F.R.S.

*As delivered by him, in the Gulstonian Lectures,
at the College of Physicians.*

LECTURE II.

*General Sketch of the Mode in which
Chemical Philosophy may be applied
to illustrate the Operations of the
Animal Economy.*

*Of Saccharine, Oleaginous, and Albu-
minous Matters, considered as Ali-
ments and Staminal Principles. The
question considered, whether Animals
can Live exclusively on one of these
Classes of Aliments.*

*On the Nature of the Digestive Process;
with some Remarks on Cookery.*

IN the present lecture it is my intention to give a sketch or outline of the mode in which chemical philosophy may be applied to illustrate the general constitution and operations of the animal economy. To these views I was gradually led many years ago; and the further I proceed, the more I am satisfied that they are founded in truth; and that they will sooner or later, in some form or other, be established. I purposely avoid details as much as possible, as the consideration of these on the present occasion would be quite out of the question.

I mentioned in my last lecture that, excluding water and adventitious matters, as the earthy basis of bones, &c. the

stamina, or ground-work of organized beings, may be considered as constituted of three great principles—the *saccharine*, the *oleaginous*, and the *albuminous*. Now as alimentary substances are derived from the organic kingdom, these, of course, must be similarly constituted, and they may, in fact, be viewed in the same light, or as consisting of the same three great classes of substances. If this view of the subject, therefore, be correct, it matters little under what head we consider these principles—whether, for example, as staminal principles, composing animal bodies, or as the aliments by which animals are supported; but as the latter point of view is in some respects most convenient for our present purpose, I shall consider them in an alimentary point of view. And, first, of the—

1. *Saccharine group*.—When speaking of this group of bodies in our last lecture, it was observed that the radical law pervading them all is, that they are essentially composed of carbon and water, or in other words, that they may be considered as hydrates of carbon. In the Philosophical Transactions for 1827, an account of the analyses of the principal substances of this class is given, and the following is a very brief abstract of the results:—

This class of bodies, like most others perhaps in nature, is made up of two great series—the crystallized and the merorganized, which, as far as essential composition goes, coincide, or run parallel, though their sensible, and even their chemical properties, are totally different. These differences are supposed to depend chiefly on the presence of minute quantities of foreign bodies, termed *merorganizing bodies*;

and partly on the different modes in which their particles are aggregated. Thus, the highest and most perfect crystallised sugar coincides with its merorganized parallel, the highest and most perfect form of starch—that, namely, from wheat. The same is true with the other varieties of sugar, which have their corresponding parallels among merorganized bodies, as the low sugar of honey or grapes, with the low form of starch existing in arrow-root, &c.

A second most important body belonging to this group of substances is *vinegar*. Of this, in the crystallizable form, only one variety is known at present—namely, pure acetic acid. But there are probably several merorganized varieties, as the lactic acid, the zoonic acid, &c. which have been proved to consist essentially of acetic acid, mixed with small portions of foreign bodies.

A third, and most important set of bodies belonging to this group, is *lignin*, or the woody fibre. This at present is only known to exist in the merorganized form, but its crystallized parallel will be probably discovered hereafter. The woody fibre is used as an aliment by many of the lower animals, and it may, by the united agencies of heat and moisture, be converted into a species of the amylaceous principle, highly nutritious.

Another set of bodies belonging to this class is the gummy or *mucilaginous*, of which gum arabic may be considered as an example among merorganized bodies, and sugar of milk among the crystallizable.

If we consider carbon as the measure of the nutritive powers of alimentary bodies in general, which may perhaps be fairly done, it may be stated generally that the capacities of the different bodies belonging to the saccharine group, viewed in this light, lie between one-third and a half of their weight.

2. *Of the Oleaginous group.*—I have analysed many specimens of the more important varieties of this group of bodies, and, as formerly stated, have found them all to be essentially composed of olefant gas and water, in different proportions, or having reference to this composition. These analyses have not yet been published. Oily bodies are naturally separated by their sensible and chemical properties into two great divisions, viz. *fixed* and *volatile* oils. The volatile oils, in general, are not used as aliments; and hence we

have little to do with them here, unless, indeed, we except alcohol, which, though conforming in its composition to the fixed oils, more nearly resembles in its properties the volatile ones. We owe much of the information we possess respecting the chemical properties of fixed oils to M. Chevreul; and in procuring the different principles for analysis, I have generally followed his instructions, for which, therefore, I refer to his works. If, as before, we consider carbon as the measure of the nutritive powers of oily bodies, we shall find that they far surpass the saccharine principles in this respect; the carbon of the fixed oleaginous bodies varying from seventy to eighty-one per cent.; while alcohol, containing fifty-one per cent. holds a sort of intermediate place between the two classes, or rather commences where the saccharine bodies terminate.

3. *Of the Albuminous group.*—This group of alimentary substances differs from the preceding in containing azote, which renders their analysis so difficult and troublesome that I cannot yet venture to mention publicly the general law that determines their composition. The following is a short account of some of the more important varieties of this principle:—

Gelatine and Albumen.—When almost any portion of an animal body, except the oleaginous matters, is boiled in water, it is separated into two portions, one soluble in water, and forming with it a tremulous jelly, or *gelatine*; the other remaining insoluble, or *albumen*. These principles exist in very different proportions in different textures, some of them, as the skin, being almost entirely convertible into *gelatine*, while others yield comparatively little of it, and consist principally of *albumen*. *Gelatine* does not exist in a fluid state in any animal compound, and has been supposed to be a product of boiling; but this is doubtful. One of its most remarkable properties is that of being convertible, by the action of sulphuric acid, into a species of sugar. This is comparatively a recent discovery; but I thought the circumstance so probable that I attempted the experiment many years ago, when the action of sulphuric acid upon starch was first observed, but on account of an accidental circumstance, did not at that time succeed. *Gelatine* may be considered as the lowest

kind of albuminous matter existing in animal bodies, and as it were, of an intermediate nature between the saccharine principle of plants and albumen; indeed, it may be considered as a sort of animal saccharine principle.

Albumen exists in the fluid state in the blood, and in small quantity in certain animal secretions, but it is usually found in by far the greater proportion as a solid, or as it is termed, coagulated albumen. Fibrin, another modification of the albuminous principle, occurs in the blood in a fluid, or at least suspended state, but in its most usual state it exists as a tough fibrous mass, in which form it constitutes, in conjunction with albumen, the basis of the muscular or fleshy parts of animals. It may be also obtained from blood by an easy and well-known process. Neither albumen or fibrin are capable of being converted into saccharine matter by the action of sulphuric acid.

The substance called *gluten*, occurring chiefly in the vegetable kingdom, and particularly in wheat flour, is a modification of the albuminous principle; and according to Berzelius, when submitted to the action of alcohol, is capable of being separated into two principles analogous to the gelatine and albumen of animals.

These three principles—gelatine, albumen, and fibrin, I am disposed to consider as related to one another in the same way that we supposed the different varieties of the saccharine principle to be related, namely, as all of them having the same essential composition, modified by different proportions of water.

Curd, a well-known substance found in the milk of all animals, is another variety of the albuminous principle.

In considering the relative nutritive powers of this class of bodies, it is necessary to take the azote into account; and if we reckon this last as equivalent to carbon, which, for a rough comparison, may perhaps be fairly done, we shall find that albuminous bodies lie, in this respect, between the saccharine and oleaginous groups—that is to say, they contain from sixty-five to eighty-one per cent. of carbon and azote; gelatine containing the least, and curd the greatest proportions of these two elements. The general conclusion from the whole taken together, in a nutritive point of view is, that substances con-

taining naturally less than thirty, or much more than eighty per cent. of carbon, are not well, if at all, adapted for alimentary purposes.

There is a point of considerable importance connected with this subject, which, before we proceed, may be briefly noticed. We have seen that all the substances used by man as aliments, with the exception of sugar and alcohol, are merorganized bodies. We have also stated that no crystallized, or crystallizable body, seems capable of forming a constituent part of a living organized being. The question therefore arises; whether pure sugar, so much used as an aliment, is really not the very worst form in which the saccharine principle can be taken. Alcohol, in its pure state, has been long generally admitted to be its worst form; and I am decidedly of opinion, that in subjects labouring under those forms of dyspepsia connected with deficient merorganizing power, which are by far the most frequent, pure sugar is as difficult to assimilate as pure alcohol, and little less injurious. Indeed, the best argument in favour of this opinion is, that it is actually used in moderate quantity only, and as a condiment, and cannot be taken in the same manner and quantity in which its merorganized parallel, starch, is taken, which, as is well known, constitutes one of the most general and abundant articles of food. So alcohol, as it exists in wine, in a sort of merorganized condition, can, as is well known, be taken in large quantity, and for a great length of time together; while, if so taken in its pure state, it would intoxicate or lead to disorganization. The same remarks apply to oily bodies, which in their pure state, and especially in their fluid state, are exceedingly difficult of assimilation; but in the state of emulsion, or that mixed state in which they occur in natural fats, or in butter, they are much more easily disposed of, and there are few stomachs that will not bear a small portion of them.

The question next to be considered is, can animals live on one of these classes of alimentary matters exclusively, without partaking of the other two? In reply to this question, it may be observed in the first place, that in almost every instance, what animals *actually* do for the most part, is to be considered as the rule; while what they *can* do on an emergency, is generally an exception:

It is one of the grand characteristics of organized beings, and by which they are more than by any thing else distinguished from common crystallized bodies, that they possess the power of varying their habits, and accommodating themselves to circumstances within certain limits, and for a certain time. That many animals, therefore, can for a time live on one of these classes of aliments alone, cannot be doubted, but that they can do so for an unlimited time is exceedingly unlikely, judging from what we actually know by observation to be the case, as well as from experiments made by different physiologists on this particular subject, both of which are decidedly against the supposition, and, indeed, lead to conclusions directly opposite, viz. that a mixture of two at least, if not all three of the classes, are necessary to constitute a perfect alimentary compound.

It is a curious circumstance that *milk*, the only article absolutely prepared and intended by nature as an aliment, is a compound of all the three classes; and almost all the gramineous and herbaceous matters employed as food by the lower animals, contain at least two, if not all the three. The same is true of animal aliments, which consist at least of albumen and oil. In short, it is perhaps impossible to name a substance employed by the more perfect animals as food that does not essentially constitute a natural compound of at least two, if not all three of these great principles of alimentary principles. But it is in the artificial food of man that we see this great principle of mixture most strongly exemplified. He, dissatisfied with the productions spontaneously furnished by nature, culls from every source; and by the power of his reason, or rather of his instinct, forms, in every possible manner, and under every disguise, the same great alimentary compound. This, after all his cooking and his art, how much soever he may be disinclined to believe it, is the sole object of his labour, and the more nearly his results approach to this, the more nearly they approach perfection. Even in the utmost refinements of his luxury, and in his choicest delicacies, the same great principle is attended to, and his sugar and flour, his eggs and butter, in all their various forms and combinations, are nothing more nor less than disguised imitations

of the great alimentary prototype, *milk*, as furnished to him by nature*.

We come now to take a summary view of the important process of digestion, which may be conveniently considered under the three following heads. First, of the *essential* changes which the alimentary substances undergo; secondly, of the nature of the *merorganization* of the alimentary substances; and, thirdly, of the *reduction* of the alimentary substances or their combination with water, and consequent solution in that fluid; all of which constitute so many distinct functions, each liable to its peculiar derangements and mode of treatment.

1. With respect to the essential changes which the alimentary matters undergo, it may be remarked that two of them—the oleaginous and albuminous are animal products, or parts of other animals, appropriated as articles of food, and hence may be supposed capable of being at once applied to the purposes of the animal economy without undergoing any essential change in their composition. But with the saccharine class, derived principally from the vegetable kingdom, the case is different; and before this can be converted, either into the oleaginous or the albuminous principles, it must undergo some essential change or changes in its composition. These essential changes, I believe, are purely chemical, and the results of obvious and common affinities, and will, I have no doubt, be known hereafter; but as I have not yet quite made up my mind on some points connected with the albuminous principle, I shall not enter further on the subject at present. I may remark, however, that whatever be the nature of the food, the general composition of the chyle is the same, though the proportions of the ingredients are liable to very considerable variations, according to the nature of the food: thus, if considerable quantities of fat be taken, the chyle will be found to abound in fat, &c.

2. Of the nature of the merorganizing processes.—In this part of the inquiry lie the real difficulties we have to contend with, in the operations of life. All the great and essential changes can be traced by care and attention, but here we meet with much which will probably

* See Blumenbach's *Physiology*, translated by Dr. Ellulson, page 311, fourth edition.

for ever remain unknown to us; and even the little that we do know can scarcely be satisfactorily applied at present. The merorganizing processes may be considered as constituting a sort of underplot, carried on by the organic agent, by which it contrives to influence and direct the operations of the material principles of which living bodies are composed; and though we can see and understand the nature of these principles, and even follow them through many of their metamorphoses, yet we cannot detect the nature of the concealed agencies that govern the whole, or perhaps, at the utmost, catch a glimpse only of a half-concealed clue, the uses and connexions of which are unknown to us, and serve only to puzzle us the more. From long attention to the subject, I am satisfied that the merorganizing principles are chiefly derived from the living animal itself, at least the more essential ones, and that they are contained in those products of secretion furnished by the stomach and other organs; and this view of the subject accords with what we know of the operations of the animal economy in general. Thus in the incubated egg, I have found that the small quantity of earthy matters occurring in the albumen remains unappropriated at the end of the process, and that the animal has derived the earthy basis of its skeleton from some other and unknown source. The merorganizing principles, therefore, already existing in the aliments, though they undoubtedly render them better adapted to the purposes of the animal economy, are not sufficient; and unless the economy furnishes the materials properly prepared, the future work of assimilation will be imperfect.

3. Of the reduction of the alimentary substances, or their combination with water and consequent solution.—Before this important part of the functions of the stomach can be well understood, it becomes necessary to make a few remarks upon the influence of water in modifying the constitution and properties of bodies. It is a general law, pervading all the three great classes of alimentary substances, as well, perhaps, as all others into which water enters as a necessary ingredient, that the greater the proportion of water they hold in combination—the more they approach the state of a fluid—the more prone they are to decomposition; and if soluble in

water in any state, the more soluble they are in that fluid. Thus if we take sugar as an example: the strong crystallized large-grained sugar of the cane contains only about 57 per cent, while the low, weak, and imperfectly crystallized sugar of honey contains as much as 64 per cent; the only difference between the two being in the proportion of water they contain in combination. The same is true of oils. The solid and fixed oily bodies, or stearines, contain less water than the soft and delicate fats and fluid oils, while alcohol, the lowest of the class, contains as much as 39 per cent. of water, and is quite soluble in that fluid. Gelatinous and albuminous bodies also are subject to precisely the same variations. The strong tenacious glue used in the arts is prepared from the firmer portions of the hides of old animals; while the delicate and gelatinous size, or weak glue, is formed from the skins of young or more delicate animals; and the two differ from one another in the proportion in which they hold water in combination; and, generally speaking, the differences between the constituent principles of old and young animals lie chiefly in the proportion of combined water they contain.

Now, in the point of view in which we are at present considering the subject, the digestive process may be supposed to consist in the reduction of the alimentary substances to the lowest possible state (to the state, as it were, of infancy,) by combining them with water, by which they are rendered soluble, or nearly so, in that fluid—a fact that must be familiar to every one who has examined the chyle, the characters of which, from the large quantity of combined water present, are so delicate, and so faintly marked, that, though capable of undergoing a species of coagulation, yet this is so imperfect that it is destroyed by the slightest motion, and even by the simple drainage of the watery portions from the more fixed, which are thus reduced to a few delicate fibres.

This combination of the alimentary substances with water, by which at the same time their solution is effected, seems to be chiefly brought about by the agency of a fluid secreted by the stomach itself. The alimentary matter previously divided by mastication, and mixed with the saliva and other fluids, is brought in contact with this secretion,

when it soon becomes more or less a fluid. Of this important secretion, chlorine, in some state or other of combination, is an element, (apparently a necessary element, for it is always more or less present,) and by its powerful agencies contributes mainly to effect this important union. This elementary principle, thus so intimately connected with the reducing process is, perhaps, one of the most frequent subjects of derangement, and instead of chlorine, or a little free muriatic acid, an immense quantity of free muriatic acid is elicited, which not only proves the source of much secondary uneasiness, but more or less retards the process of reduction itself. The source of this chlorine or muriatic acid, unless we suppose it to be generated, which is an unnecessary hypothesis, must be the common salt existing in the blood, from which the secretion takes place; and it may be asked, what is the nature of the action thus capable of decomposing such a compound? We know of one agent capable of exerting this power, namely, electricity; which agent, in a former lecture, we attempted to shew is employed by the animal economy in its operations, in the same way, and on the same principle that it employs the materials themselves. To the immediate agency of this principle, therefore, the decomposition may, perhaps, be fairly referred; but the question here arises, what becomes of the soda after the muriatic acid has been separated? This, of course, remains behind in the blood, and a portion of it no doubt goes to keep up that weak alkaline condition essential to the blood as a fluid; but a large proportion of it probably goes to the liver, and is there elicited in combination with the biliary principles—at least this is the most probable conclusion. We have thus a beautiful provision of nature; for the soda, in the act of being elicited with the bile, is again brought into union with the acid separated in the stomach, where it combines with it, and thus by its agency further decompositions are effected, and the incipient chyle is separated from the excrementitious matters.

Admitting that the above decomposition is effected by the immediate agency of galvanism, we have in the principal digestive organs a sort of galvanic apparatus, of which the mucous membrane of the stomach, and perhaps the intes-

tinal canal generally, may be considered as the acid or positive pole, while the hepatic system may be considered as the alkaline or negative one. Whether this be admitted or not, which is a matter of no great importance, the above may be considered as a simple expression of facts, as far as the saline matters of the blood are concerned; and in conjunction with these, and by the aid of the same energies, there are several other very important processes or changes carried on, some of which I hope hereafter to be able to elucidate.

Before we quit this subject we may make a few remarks on cookery, the object of which is, or ought to be, to facilitate the solution of the alimentary matters, by combining them with water, and thus to aid the stomach in effecting the important process under consideration.

Animals feeding exclusively on vegetables are well known to be furnished by nature with an extensive apparatus of stomachs and other organs, admirably adapted for the purpose of macerating and reducing their refractory food to the purposes of their economy. But man, who is evidently intended to live on vegetable products, in part at least, has not been furnished with this apparatus, and hence we may conclude that the deficiency was intended to be supplied by his ingenuity and the artificial processes of cookery. Now the different processes of baking, roasting, boiling, &c. are all, as before observed, of a reducing character, and by their united effects the most refractory substances, even the woody fibre itself, may be reduced to the state of a wholesome and nutritious bread. With respect to this subject it may be remarked, in general, that it is infinitely easier to reduce a principle from a high to a low condition, than the reverse. Thus the strongest sugar may be easily made weak, or may even become so by mere keeping; but when once reduced to this state, I believe it never can be restored again, so as to render it well adapted for the purposes of the sugar-boiler. And here it may not, perhaps, be amiss to make a few remarks on what is termed French cookery, in opposition to that generally employed in this country. In France most substances are exposed, through the medium of oil or butter, to a temperature of at least

600°, by the operation of frying, or some analogous process. They are then introduced into a macerating vessel with a little water, and kept for several hours at a temperature *far below the boiling point*, not perhaps higher than 180°; and by these united processes, properly conducted, the most refractory articles, whether of animal or vegetable origin, are reduced more or less to the state of pulp, and admirably adapted for the further action of the stomach. In this country, on the contrary, articles are usually put at once into a large quantity of water, and submitted without care or attention to the *boiling temperature*; the consequence is, that most animal substances, when taken out, are harder and more indigestible than in the natural state; for it is well known that albuminous matters, as for example the white of an egg, become the harder the longer they are boiled. These observations are often of the utmost importance in a dietetic and medical point of view. When the reducing powers of the stomach are weak, a hard and crude English diet, such, for example, as half-raw beef-steaks, &c. so frequently recommended, is sure to disagree and produce much discomfort, by promoting acidity and all its consequences; while the very same articles well cooked upon French principles, or rather the principles of common sense, can be taken with impunity, and easily assimilated, by the same individual. I need scarcely allude here to the curious fact now well established, and strictly explicable upon well-known principles of the animal economy, that when any indigestible substance is introduced into the stomach, this organ immediately throws out an extra quantity of acid. Of the truth of this I satisfied myself by experiments on animals many years ago; and the circumstance has since been confirmed by the experiments of Tiedeman and Gmelin of Heidelberg. This law explains many of the most troublesome circumstances connected with errors of diet and indigestion.

I need scarcely observe, that I do not approve of *all* French cookery, but only of that rational portion of it, by which articles of food are rendered more easy of digestion.

In the above sketch of the nature of the digestive process, I have endeavoured to draw the line of distinction between the

difficult or impossible, and what is really within our power; and have only to remark in conclusion, that though these three great essential points, in the digestive process, are sufficiently distinct from each other, it is not to be understood that they take place in succession; or in the order in which they have been described. The fact is, that they all go on together at the same time; and no sooner does an alimentary substance begin to be dissolved, but its future destination seems to be determined; and if it be expedient that an essential change shall take place, this is accordingly commenced; or if not, the merorganizing process commences even at the outset; and the consequence is, that all the three great constituents are met with in the chyle the moment the extraneous matters are separated by the action of the biliary secretion.

ON FEVER.

Note of a Lecture by M. Andral, (from a Paris Correspondent.)

We understand by the term *fever*, a disturbance of the functions of the circulating organs.

The earliest observers recognized a kind of internal *fire* which gave rise to organic affections constituting their pneumonic, pleuritic, cerebral, gastric, rheumatic fevers, &c.; so that the fever was looked upon as the *cause* of all the organic lesions that were observed during its course. By degrees, however, this theory became modified, and an idea crept in that many of these lesions, instead of being the *consequence*, were actually the *cause* of the fever. The terms "pneumonic, pleuritic fevers," &c. were then rejected, and "pneumonia, pleurisy," &c. substituted. The expression "fever" was retained only to express certain morbid conditions characterized by heat of skin, frequency of pulse, and general functional disorder; which state was called, by Galen, "*essential fever*." Pathologists were, however, obliged to admit many species of essential fevers, which were then named, either from their presumed causes — as "bilious," "mucous," "milk," "putrid," &c.; — or from their most striking phenomena; as, when nervous or sanguiferous disturbance

predominated, the fever was called "nervous," or "inflammatory. Fevers were subsequently denominated from the parts especially affected, as "cerebral," "gastric;" or from the locality whence they originated, as "camp," "hospital," "prison fevers." It is unnecessary to observe that this nomenclature had no fixed basis, and was constantly liable to vary with different theories.

[Here M. Andral explained the doctrines of the *solidists*, *humouralists*, and *vitalists*.]

Until lately many authors have continued to designate under the term "fever," the greater part of inflammatory affections. The ideas of the celebrated Pinel form a connecting link between the ancient and modern theories. He admitted the existence of "essential fevers," and also their occasional dependence on organic lesion: he called the inflammatory fever, "*Fièvre angéioténique*;" the nervous fever, "*Fièvre cérébro-atacique*;" the mucous fever, "*Fièvre adéno-gastrique*." In the above theories, how striking is the tendency to *localization* of fevers.

Such was the state of science regarding fevers when the doctrine of Broussais became spread abroad, and effected a most extensive and useful revolution in medicine. His inquiring mind directed him to trace the seat and cause of "essential fever" to a morbid condition of one or more parts of the body; to consider these fevers as only sympathetic of a local affection more or less appreciable to the senses; and to direct his treatment exclusively to this affection, and not to the fever itself, which is only an effect of the local disease. But M. Broussais wished to go still further, and signalized *one particular lesion* as the only origin of all the different symptoms characterizing "essential fevers;" which, according to his doctrine, are all the result of a *gastro-intestinal irritation*. Here his theory has failed; and though it is well established that every fever can and should be localized, yet this localization should be made in a much more extended form than his theory admits of. With him, inflammatory, mucous, bilious fevers, are only symptomatic of the gastro-enteritis; which view is not universally correct, as we often see genuine fever

where not the slightest evidence of gastro-enteritis exists.

M. Andral then laid down the following axioms:—

1. Fevers may depend on particular modifications of inflammation of the intestines, the stomach being quite healthy.

2. Fevers may depend on inflammations perfectly distinct from that of gastro-enteritis; *e. g.* pneumonia in old men.

3. Fevers may depend less on the degree or intensity of the inflammation of an organ than on a peculiar state of the blood and of the nervous system (*e. g.* ulceration of the intestines causing adynamic fever in some and not in others).

4. Fevers do not necessarily depend on inflammation of an organ, but may be owing to a troubled state of its functions.

5. Fevers seem to recognize for their cause rather a disordered state of the fluids than of the solids—as of the blood, for instance.

Occasionally there is no appreciable cause of fever, so that attempts at localization fail: these fevers are arranged only by analogy of characters: for example, in puerperal patients all the signs of adynamic fever sometimes appear; and here the most careful examination after death has failed to shew any traces of gastro-enteritis in the great majority of cases. It may be said that hysteritis was the cause of this fever, and that the uterine veins were inflamed, as they were found full of pus. These cases do not come under genuine adynamic fever, but constitute "symptomatic adynamic fever."

The symptoms occurring in the course of fever may be referred to—

1. Functional disorder of circulating system.

2. Disturbance of nervous system.

3. Disorders of solids, severe and numerous in proportion to the degree of lesion.

When these three elements of disease exist, the principal element does not always characterize the features of the disease, —*i. e.* the prevailing symptoms may not be in proportion to the degree of lesion. In old men, much reduced in strength, the symptoms of gastritis are very different from those commonly observed:

the same change is observed in the modification of the character of fever when many individuals are crowded together in a camp, or in a prison. Take as an example the case of two women seized with hysteritis after delivery; the one easy in circumstances, the mind unoppressed by grief or care; the other poor, harassed both by mental and bodily troubles: the event, in the second case, is much more likely to be unfavourable; typhus will, in all probability, supervene. In both cases the essential nature of the disease is the same, but its character seriously modified by disturbance of nervous system. When the innervation is thus disordered, two sets of phenomena arise.

1st. Functional disorders of nervous system.

2dly. Disorders of other organs, under the influence of nervous system.

Of the *first set* are affections of mobility, sensibility, and mental faculties; depending either on over-excitement of nervous system, or on decrease of the natural quantum of nervous energy. These functional disorders chiefly occur after the body has been weakened by large bleedings, and we should be cautious in considering *subultus tendinum*, convulsions, and delirium, as signs of the increase of cerebral energy. If we examine animals shortly before death, the peristaltic action of the intestines is observed to be much more violent than in the natural state; here, therefore, the sum of nervous energy is greatest when life is at its lowest ebb.

Of the *second set* we have—*a.* Functional disorders of organs of assimilation. *b.* Functional disorders of organs of disassimilation.

a. When we have inflammation of the lung, uterus, &c. if the sanguiferous system be alone affected the pulse is quick, the skin burning, &c; but when the innervation is disordered, the pulse will be still frequent, but very weak, and the strength will vary considerably even in the same day; proving the influence of the nervous system over the sanguiferous. Occasionally irregular congestions of the capillaries of the face; variations of the temperature of the skin, sometimes so considerable that one part shall be burning hot while that near to it is of an icy coldness: both of these phenomena evidently under influence of the nervous system.

Respiration at times very frequent, then slow and irregular; strongly characteristic of disordered condition of the mechanism of respiration. The same effect is produced in animals by the division of the eighth pair of nerves: the animal becomes half suffocated, and at length effusions take place. *Nutrition* sometimes so much affected that great wasting may take place in a few days; so that a patient attacked with severe fever may present positive atrophy of muscles, though he might have been a short time previously remarkably athletic. In real typhus the consistency of solids is materially diminished: cases have been observed where all the organs were reduced to a pulpy condition. Spontaneous gangrene sometimes observed, as in cases of pestilential fever.

b. Secretions.—Perspiration may be remarkably diminished, so that the skin will be dry and shrivelled. The face is sometimes of a leaden or earthy hue in different diseases, as in hysteritis, &c. in which the innervation is seriously disordered.

Mucous membranes.—*Tongue* not at all an index of the state of the stomach, for in the same condition of stomach the tongue may be either quite moist or black and dry: when the innervation is much disordered, as in puerperal peritonitis, the tongue, gums, lips, &c. present a fuliginous aspect; sometimes, again, although there be great disturbance of the nervous system, the state of the tongue may differ very little from that observed in simple gastritis. In the intestines we have tympanitis occurring, and more chiefly in the large intestines, where there is no lesion to account for the production of gas.

We observe tympanitis in consumption when the innervation is seriously troubled; also in cases in which large quantities of blood have been uselessly abstracted; and finally, in all cases where the *nervous system* is deranged, &c.

CASE OF DISEASED HEART,

With Reduplication of the Contractions of the Auricle.

By DAVID BADHAM, M.B.

To the Editor of the London Medical Gazette.

SIR,

SINCE cases of diseased heart are now admitted to be of greater frequency than formerly, an interesting question has arisen as to their predisposing causes. Dr. Wilson ingeniously supposes that the present artificial state of society, as it gives rise to the concealment of emotions, in which the heart comes sooner or later to sympathise, leads not very remotely to eventual disease of this organ. This very simple, and, from the well-known effects of moral causes upon the source of circulation, very plausible explanation, would admit, if true, of very beautiful and extensive application. If to dissemble or repress emotion be to predispose to dilatation of the heart, one great tribe of the British empire should be singularly liable to the alleged consequence, and another singularly exempt. The Irish should be beyond comparison less exposed to dilated heart than the people north of the Tweed. For a like reason, the natural volatility of the French character should render the tendency to such diseases in that country comparatively rare, which is certainly not the fact, since no nation appears to have had a greater familiarity with, or to have more largely advanced our knowledge in, this class of diseases. But structural derangement of the organ of circulation cannot plainly be attributed to such causes, for it must be from observations made in hospitals alone, and not from the scanty data of private practice, that the point after all can be settled. Now the inmates of public charities can hardly be supposed, with few exceptions, to have been peculiarly susceptible of the moral causes assigned by Dr. Wilson, or indeed of any moral cause whatever. Of the fictitious cares of life which distress the higher classes of society, they know absolutely nothing; while the constant necessity for exertion diminishes the intensity of those real calamities from which no class of mankind is exempt. As the amount of moral suffering is therefore comparatively small among

the lower orders, and as their physical suffering is too frequently severe, should we not turn our attention to causes of a physical character, and seek in these, if not the only, the very frequent disposing causes at least to this class of maladies?

Janet Colquhoun, æt. 25, was admitted into the clinical ward of the Royal Infirmary of Glasgow, under the care of the Professor of Medicine, in the month of March, with a slight attack of pleurisy, of which, having completely recovered, she was to have been dismissed "cured," no suspicion being entertained of any ulterior structural derangement. On finding, however, that among the symptoms, the case-book recorded cough, and very slight tinge of blood in the sputa, together with headache, startings during sleep, palpitations without an adequate exciting cause, and dyspeptic uneasiness of stomach, although none of these circumstances separately could be considered as likely to bring her case under the category of heart diseases, yet when taken "together," they seemed to justify suspicion, at any rate, that organic mischief was probably concealed under them, and that the seat of such organic mischief would be found to be the heart. There has also existed in this individual a pretty constant stain of circumscribed redness over both cheeks, more vivid I have sometimes fancied on the left, accompanied with a yellowness over the upper and under lids of both eyes, which a short time ago became puffy; and these two appearances, according to Corvisart, constitute two of the least equivocal, among the very many equivocal symptoms of the obscure disease, pericarditis; of this, however, we have here no further evidence. The whole face has twice become œdematous within the last two months, but neither the body nor the extremities the least so. The respiration has never been perfectly easy; the apparent anxiety with which it is performed increasing greatly on the slightest exertion, and being always susceptible of relief by depletive measures. Two alarming fits of sudden and seemingly mortal faintness have recently occurred, in which the unhappy patient became livid in the face. Her pulse is quite uncertain as to frequency; I have counted only 43 pulsations in the minute, I have counted as many as 115.

Its general character is that of regularity, yet this by no means always: sometimes it varies within two successive portions of a minute, and so capriciously as to set accuracy of description at defiance. The action of the heart is always much accelerated, as I have before mentioned, by the slightest causes, sometimes without any apparent cause; at first, perhaps, from apprehension: the mere application of the cylinder would raise the number of pulsations considerably, and some time would elapse before the organ quite recovered its normal action. The patient's father died some years ago of what she calls an "asthmatic complaint," having felt for many years before his decease a great distress about the heart, affording further room for conjecture that the cardiac affection clearly about to be developed is hereditary, for asthma is the most common symptomatic disease to which organic lesions of the heart are known to give origin. The following very curious results have been at various times obtained, while the pulse was only 45 and regular, presenting therefore very considerable facilities to the observer:—

1. Pulsation of the heart heard over the whole chest, or nearly so.

2. The heart's impulse on the right side exaggerated, but slightly; neither the first nor second sound, however, so clear as on the opposite side, where,

3. The former is far louder than natural, but the shock less than over the right cardiac region.

4. The first sound concomitant with the heart's impulse is preternaturally loud on both sides, more particularly on the left, where it resembles the sound commonly produced by the auricles.

5. The rhythm of the heart has been for the last week or ten days altogether extraordinary, and to this fact my attention has been particularly drawn; the first sound, with its concomitant impulse, having been as usual followed immediately by a second; this was in its turn as immediately succeeded by a third, or, to speak more correctly, by a reduplication of the second. These three sounds together form an exact *waltz* measure, after which comes a pause of much longer than natural persistence. On some occasions the auricle (to which I have little hesitation in referring the second sound of the heart, although at variance, perhaps, with the prevailing opinion) has contracted not only twice, but sometimes thrice, or even four times, for each pulsation of the ventricle; and what is very remarkable, since contractions of the auricles are seldom communicated to the sense of touch, distinct beats exactly synchronous with these sounds are to be ascertained, whatever number of times the sounds are repeated. In short, if the ventricles in this case occupied the same time in contracting as they do in health, and the pause were of natural persistence, the rhythm of the heart might be represented in musical notation, as follows:—



The first bar represents the natural rhythm, in which the ventricle occupies half of the time, the auricle quarter of the time, and the pause the remaining quarter.

I had myself never before met with this species of irregularity in the heart's rhythm; it has not, however, escaped the diligent observation of Laennec, though the rarity of its occurrence will be seen by the following quotation from his work, from which it would appear, too, that he had only found it concomi-

tant with increased action of the heart: "It sometimes, though very rarely, happens during palpitation, that each contraction of the ventricle is followed by several successive contractions of the auricles, so quick as only to equal in point of time one ordinary contraction. In this sort of palpitation, I have sometimes reckoned two pulsations of the auricles for one of the ventricles, sometimes four, but more commonly three. In one case of hypertrophy of the left ventricle, I saw this species of irregu-

larity continue for several days without any variation. I have only observed it in hypertrophy." The quotation is interesting in itself, and is so explicit as to mark with clearness the points of resemblance and dissimilarity between the cases to which Laennec alludes and the one at present before us; but it contains one sentence which seems obnoxious to criticism. He observes that in hypertrophy the systole of the ventricles is long, and consequently the auricular contraction short, and states, in another part of his work on the Diseases of the Chest, that the auricular occupies but one fourth of a whole natural pulsation, (consequently a still shorter interval than this in hypertrophy); adding, that he has only observed this phenomenon at all, during palpitation, that is, when the pulse is confessedly quicker than natural. And yet, under these circumstances, he ventures to determine that "the several successive and morbid contractions of the auricles exactly represent the time of one natural contraction." Now, estimate the pulse at no more than 100 in the minute; the natural auricular systole equals then, in point of time, but 1-400th of this, and in the cases of hypertrophied ventricle much less; suppose 1-600th part of a minute; the comparison therefore instituted is between this fraction and multiples of it*!

In addition to the above rarely-to-be-observed phenomena, there is a widely-diffused "bruit de soufflet" down the course of the aorta, and throughout its extent. It is not confined to the artery, but has a considerable latitude to the right and left of the spinal column. It appears to me to precede the pulse, and

therefore to be synchronous with the diastole of the ventricles, and consequently with the systole of the artery in which it resides. Laennec however affirms, that it never occurs in the heart or arteries, but during their respective dilatations. Here I must again press the question, how can the efficient cause of the production of this sound in the artery be a spasm of its muscular coat, a shortening of muscular fibre, at the very time that the current of the blood through the vessel is putting this fibre most upon the stretch? But I do not believe that it always occurs during the diastole of the heart or artery, and have this among other reasons for disbelieving it in the present case:—the "bruit de soufflet" is long in persistence; so is the pause which follows the auricular contraction while the ventricle is dilating; but the ventricular contraction which corresponds to the arterial dilatation is remarkably short, and therefore (other considerations apart) cannot be the agent by which this sound is produced.

My general diagnosis is, "dilatation, with slight hypertrophy of the right, and extensive passive aneurism of the left, side of the heart," conclusions which seem clearly made from the facts detailed. I am sensible that the case just detailed leads to no practical results; but medicine is a science of observation, and to multiply accurate remarks seems to be the only sure, though it be the slow, way to arrive at any improvement in our art; and the stethoscope, applied by persons of judgment and previous information, will be certainly found in a very short time to have enlarged the boundaries of our positive knowledge of the most interesting class of human diseases, and will therefore cut off unavailing treatment, and direct the application of remedies, whether successfully or not, at least scientifically.

I remain, sir,
Your obedient servant,

DAVID BADHAM, M.B. Oxon.

College of Glasgow,
May 1, 1831.

* Does not this reiteration of the second sound of the heart materially invalidate the ingenious theory, which supposes the second natural sound to be produced by the sudden contact of the sides of the ventricles? Each unnatural repetition could then only arise by an equally frequent collision of the ventricular parietes; to effect which, as many imperfect dilatations or incomplete expansions of the cavity must be supposed—a supposition as gratuitous as it is repugnant to common opinion. Nor will the ingenious supposition promulgated by Dr. Bond better explain the efficient cause of this second sound, although he has transferred it, I think, to its proper seat; for, to quote his words, "the sudden arrest given to the further ingress of the blood into the auricle, by the complete occlusion of the auriculo-ventricular orifice at the moment of the ventricular systole," cannot possibly account for those rare cases, of which the present is an example, where the second sound is repeated.

ON THE
PECULIAR FORMATION
OF THE
TAILS IN THE MALAY AND MA-
NILLA CATS.

By GEORGE BENNETT, M.R.C.S, &c.

THE formation of the tail of the Malay

cat is peculiar, and, I believe, has hitherto been unnoticed by any author. Its appearance might induce us to consider it as the result of injury, or disease, did we not observe the same form common to all the individuals of the Malay breed. The accompanying figures will illustrate this remarkable formation.

Fig. 1.



Fig. 3.



Fig. 2.

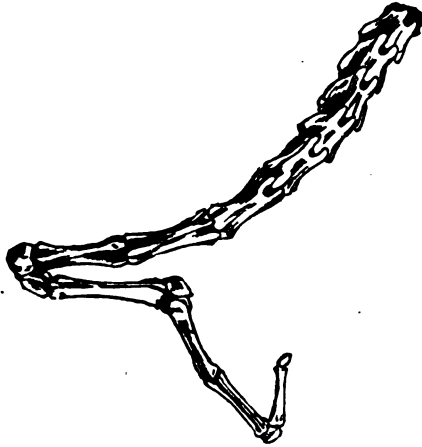


Fig. 1st represents its appearance when covered with the fur, and fig. 2d when dissected so as to shew the skeleton. Preparations in the latter state have been deposited in the Museum of the Royal College of Surgeons, in London. It is a curious circumstance, that, although this deformity exists in the whole race, no regular character in the formation prevails. Capt. Rees, of the Calcutta ship, Lord Amherst, related to me that he had had a female Malay cat which bred with an English male cat of the usual species; of the kittens which it bore, some had short and others long tails. Nature, ever capricious in her works,

has again amused herself with the feline race of the Island of Luçonia, which is almost in a tailless condition. What may be considered the caudal extremity of these latter animals, consists solely of two, or at most three, very short vertebræ, slender and tapering, resembling the terminal vertebræ of the common cat's tail. During my stay at Cavité, the ship's cook had a female cat, of the Manilla or tailless breed, which produced kittens; some of her offspring were, like the mother, tailless, whilst others had the crooked tail of the Malay cat, to which breed the male parent most probably belonged. The small

portion of tail the Manilla cat possesses, has, when covered with the fur, an abrupt termination, presenting the appearance of the extremity having been bitten or chopped off (see Fig. 3); and this is the idea we were first led to entertain. Examination of the skeleton, however, at once sets the question at rest, and sufficiently demonstrates that the deficiency of tail in the Manilla, and its distortion in the Malay cats, is in no way the result of injury.

Analogous to this distortion are the preparations in the museum of the Royal College of Surgeons in London, of the perch (*perca fluviatilis*), found on the estate of Sir W. W. Wynn, with preternatural distorted spine.

London, May 28, 1831.

SPASM OF THE MUSCLES OF THE NECK.

To the Editor of the London Medical Gazette.

SIR,

SHOULD you think the following case of sufficient interest you will insert it an early number.

Your obedient servant,

FRED. ADAM CATTY,

Member of the Royal College of Surgeons.

Cambridge, May 26, 1831.

Mrs. H. æt. 22, in the sixth month of pregnancy, of a full habit, and with a tendency to blood to the head, was attacked on the 14th of May, in the middle of the day, with dizziness and dimness of vision, whilst in a stooping position. The head was drawn forcibly to the left side, and the chin drawn down to the scapular end of the clavicle. I saw her about a quarter of an hour after she was first attacked. The head was firmly fixed in the above position. The muscles on the right side of the neck, (more particularly the sterno-cleido-mastoides) were rigidly contracted. She complained of excessive pain on the right side of the neck, and extending down the arm, which was increased on the slightest motion or pressure. The pulse full and hard, and complained of throbbing in the head. I immediately took ʒxx. of blood from the arm, which produced fainting. The muscles be-

came relaxed, and I left her after ordering a brisk purgative draught. During the evening she continued nearly free from pain, and had a good night.

The next morning, however, on leaving her bed, she was again attacked with the spasm of the muscles of the right side of the neck, and I found the head drawn in the same position as when I first saw her. I ordered her to take nauseating doses of the *Vin. Antim. Tart.* which relieved the spasm of the muscles; and in the course of a few hours she was free from pain, excepting slight tenderness on pressure. She has since continued free from spasm.

I think we may account for the spasm in the first attack by the excitement of the brain and nervous system, which is found in all cases of pregnancy, and which in this patient was very great; but I should rather be inclined to think that the attack on the following morning arose from the excitability of the muscles, and their being called into action on the patient getting up so soon after the first attack. Had she remained in bed, as I had directed her to do, I do not think the spasmodic contraction of the muscles would have again occurred.

CHEMISTS AND DRUGGISTS.

To the Editor of the London Medical Gazette.

SIR,

THE profession, through the medium of your justly-popular Gazette, and indeed the public in general, through that of the newspapers, have been recently made acquainted with the zealous manner in which the worshipful Company of Apothecaries have deemed it incumbent upon them to instigate proceedings against a gentleman of the name of Ryan, for an alleged violation of the laws of that learned body.

Now, though it is far from my intention to presume to deprecate the steps they have taken, or to be understood in any way to undervalue that protection which has placed the profession at its present point of elevation, yet I really do think, a source of far greater evil to the community, and of very extensive infringement of their privileges, exists;

and is totally overlooked by them ; and the remedy of which would be felt and appreciated infinitely more generally, than the occasional prosecution of an individual, who, in all probability, has received the education of a gentleman, professionally as well as otherwise, and who is unqualified to practise, only because he does not possess the diploma of the Society of Apothecaries. The source of evil to which I allude is, the uninterrupted manner in which those who have no claim to an appellation above that of "chemists and druggists," are allowed to impose on the profession, as well as the credulity of the public, by giving their ridiculous opinions regarding this, that, and the other disease, and prescribing their—

"Emeticum, catharticum, et omne quod exit
in um,
Præter remedium"—

with all the easy assurance that unbounded ignorance can give ; thus committing the twofold offence of depriving the regular practitioner of that reward to which the arduous prosecution of his professional labours entitle him, and of placing the health, if not the lives, of those who allow themselves to be the dupes of such imposing delusion, in actual jeopardy.

It is an undeniable fact, that the majority of chemists and druggists in London and its vicinity, accrue a very considerable portion of their revenue from "prescribing" the medicine they sell ; and this too is not limited to consultations held within the precincts of their own walls, but many are known to visit those who (perhaps from the untoward or miscalculated action of a drug administered the day before,) are incapacitated from attending at their shops ; and it is a melancholy truth, that we are not unfrequently called upon to combat disease (greatly modified, and indeed often rendered anomalous,) in those who have been the victims of so much unwarrantable presumption.

I have the honour to be, sir,

Your obedient servant,

A MEMBER OF THE PROFESSION.

May 31st, 1831.

LONDON UNIVERSITY—APPRENTICESHIPS.

To the Editor of the London Medical Gazette.

SIR,

DR. DAVIS, in his public address to the Council of the University of London, on the day that prizes were awarded to medical students, thought fit to indulge in observations which, though they merit, perhaps, but little attention, as flowing from his own particular opinions, derive an extrinsic interest from the time and place in which they were expressed, and also from the apparent authority with which they were clothed, as the sentiments of the newly-created *senatus academicus* of which the Doctor was understood to be representative and the organ.

The friends of the University, who take the most zealous and enlightened interest in its welfare, and look forward to its permanent establishment, on recognized and sound principles, as a means of forwarding the literary and scientific studies of the rapidly increasing middle ranks of the community, have seen with concern the threatened disappointment of their hopes, from the fidgetty desire which is constantly evinced of acquiring a premature reputation by meretricious trickery, and the concealed announcement of pre-eminent excellence in the peculiar mode of instruction which is intimated in very distinct terms to be the result of the clear views entertained at the University of all existing defects in public education, and of consummate skill in happily devising measures to put the youth of the town, without delay, upon the newly-discovered road to learning.

Had the young University been content to travel in the beaten path until it had gained strength of limbs and steadiness of gait, and until longer experience, with patient and accurate observation, had enabled it to ascertain the precise nature of the impediments in its way, it would not have stumbled so frequently into error as it has done, and would have escaped the imputation of conceit and self-sufficiency.

It is unnecessary to trouble you and your readers with the enumeration of all these various follies ; many of them have been already noticed by yourself and

other writers on medical education: it is, therefore, my intention to confine my remarks exclusively to the last public display of them, on the 21st ult.

In the presence of a large body of students, many of whom were doubtless in a state of pupillage, Dr. Davis spoke, in unmeasured and unqualified terms of abuse, of the system of apprenticeship which the common sense of the country had originated and the legislature had sanctioned and enjoined for the discipline of medical students. Had the Doctor condescended to advance even a single argument as the ground of his objection, he might have carried with him the judgment of his younger hearers, instead of exciting their passions and encouraging their impatience of control; and had he suggested any substituted scheme, better calculated to effect the end in view, he would have secured the approbation of his elder hearers, instead of offending them by his imprudence.

Whatever opinion may be entertained by some persons of the future perfectability of human nature, at present it is but too apparent that young men have not yet attained that blissful state, and that, as they are at present constituted, with passion frequently stronger than principle—with imagination more lively than is their judgment sound—with a more ardent thirst for knowledge than is their acquaintance accurate with the purer sources from which they may gratify it—they stand indispensably in need of control and guidance.

In all other professions this truth is admitted; in the navy, the army, the law, and the church, it is acted upon, and analogical reasoning would convince us that it was equally necessary in the profession of medicine also.

At hospitals and medical schools, as at present constituted, no enlarged system of discipline is or can be enforced, and the heterogeneous society and numerous temptations there met with are but little calculated, in its absence, to improve the moral character. Nor, as yet, has the discipline of the London University been of brighter promise of good; the students there have been clubbing together in hostility to their teachers and the Council; and if these disorders existed when the latter body was represented by one individual only (the Warden), discipline is not likely to be more consistently, energetically, or

discreetly exercised by the hydra-headed *senatus academicus* to which it is now to be entrusted; and, certainly, before the Professors are called upon, in their new capacity, to discourse on propriety of language and deportment, it is to be hoped that care will be taken that none of themselves offend in these respects, lest peradventure an example should be found in any lecture-room within the walls of the University, at variance with their precepts. I most readily admit that apprenticeships are far, very far, less useful to the student, and creditable to the practitioner, than they are capable of being rendered. It is not, however, from the abuse of a well-devised system that we are to infer its entire worthlessness; and I am certain that, with all its defects, abundant proof can be adduced that the reprobated system of medical apprenticeship has contributed most essentially to the improvement of practical medicine, by affording young men very favourable opportunities of becoming personally and intimately acquainted with such classes of disease as form the greater amount of maladies which eventually fall under their treatment in after life, and are rarely admitted into the wards of an hospital. Upon the rational empiricism of medicine, as founded on the study of disease in the great book of nature, has the practice of it in this country been able to bear triumphantly the comparison with its condition in France; there, science studied in the abstract, and theories ingeniously devised, give evidence of the speculative character of that school, whilst the smaller proportion of deaths in England prove as incontestably the efficiency and superiority of the practical character of our own; and since the general practitioner has forty-nine fiftieths of the public entrusted to his professional care, it is obviously unjust to consider the entire system of his education, of which a very important feature is the apprenticeship, to be altogether worthless, whilst it continues to produce such good fruits.

Proposing to trouble you with another letter, on Dr. Davis's consideration of the *business* portion of the profession;

I remain, sir,

Your obedient servant,

A. B.

June 1, 1881.

COVENTRY BENEVOLENT DISPENSARY.

To the Editor of the Medical Gazette.

SIR,
AN advertisement having appeared in the Times of Saturday, May 28th, it may possibly excite the wonder of your readers that "the Coventry Benevolent Dispensary" should be in immediate want of seven medical officers. If, therefore, you think the following brief account worth insertion, I shall feel obliged by your doing so in your next number.—I am, sir,

Your obedient servant,

JOHN BURY,

Formerly one of the House
Surgeons to Barth. Hos-
pital.

Coventry, June 8, 1831.

In April, 1829, a few individuals, being pleased with Mr. Smith's views as to self-supporting Dispensaries, formed themselves into a committee for carrying them into effect. At an early period they sought the sentiments of the profession upon the subject, and in conformity with their wish, a meeting of the physicians and surgeons of this city was called. At this meeting the subject was fully discussed, and finding, from reports of several institutions in the neighbourhood, they by no means succeeded, and were found materially to interfere with the interests and practice of the medical men, it was agreed to state to the Committee, "that a Dispensary, upon a self-supporting principle, was a form of institution not adapted to Coventry;" but "that the members of the profession would cordially unite with their fellow-citizens in the establishment of one upon the usual gratuitous plan." The Committee were not satisfied with our decision, and persevered in urging upon the profession and the public a Dispensary on their favourite plan; but finding the members of the profession unanimously opposed to them, and the town much divided upon the subject, they at length dissolved themselves, November 13, 1829.

Thus the matter rested till February of this year, when, upon some medical arrangements at the House of Industry, these gentlemen again formed themselves into a committee, and have a second time, with wonderful perseverance, attempted to carry their point. There are in Coventry five physicians, and fif-

teen general practitioners, every one of whom have signed their names *not* to join the institution. Of the inhabitants, I think I may fairly estimate the division on the subject as equal; but on the side of the committee several have subscribed with the express assurance that the institution would be joined by the faculty; and many of these individuals have declared they will not continue their subscriptions another year. I will now refer your readers to the advertisement:—The Bishop of the diocese, Patron; 12 Vice-presidents, not *one* of whom may be considered as connected, by residence or property, with the town; in fact, the noblemen and gentlemen of the vicinity, finding it a divided business, have declined to join it. I have not time, nor would it interest your readers, to detail the *threats* now held out of applying for other medical men, and other unbandsome treatment of the resident practitioners; these will form the subject of a report now in progress; but I have sent these few particulars, that any gentlemen inclined to make proposals to this *benevolent* committee, may know experimentally what "sending to Coventry" means.

MEDICAL GAZETTE.

Saturday, June 11, 1831.

"Licet omnibus, licet etiam mihi, dignitatem Artis Medicæ tueri, potestas modo veniendi in publicum sit, discendi periculum non recuso."—CICERO.

COLLEGE OF SURGEONS—PROCEEDINGS OF THE COUNCIL.

THE Council of the College of Surgeons had so long remained passive—had so long borne "with a patient shrug" the abuse week after week poured upon them by one holding their diploma—that people began to doubt whether they had any powers at all—whether there were any insult they would resent, or any outrage they could punish. He, who, to use his own licentious expression, had written against them "enough to fill a BIBLE!" finding that they were not to be moved by any thing he could say, resolved no longer to limit himself to words, but ventured upon more active warfare; and leading on his

devoted crew, proceeded to take the theatre by storm—to stop the lectures—insult the President—and drive the Council forth. This fortunately brought matters to a crisis; and we hesitate not to say, that if the Council had overlooked these proceedings—if they had failed to exercise whatever authority the laws allow them against the perpetrators of so glaring an outrage, they would have shewn themselves utterly unworthy of their places—they would have drawn upon themselves the well-merited contempt of the whole profession, and must soon have made room for others—not more distinguished as surgeons, perhaps, but certainly endowed with more firmness as men. Charges of “tyranny, usurpation, dishonesty, and swindling,” had been poured upon them and reiterated till the most impartial began to wonder whether their forbearance was to be attributed to magnanimity or to fear; and had they not at length stepped forward on the last occasion, all doubt upon the subject would have been at an end, and the general feeling so completely against them, that the strength of their opponents would have been increased tenfold. Let them not flatter themselves that a single individual, from John-o’-Groat’s to the Land’s End, would have given them credit for any consideration *but fear*, had they neglected to vindicate their rights; or will now attribute their conduct to any other motive, should they stop short in the career which they have begun. That the defendant is most anxious to bully and frighten them, is obvious—every line and every word he writes, betray it. He who, a few days ago, in person, publicly instructed his counsel to assure the Court as an inducement for them to discharge the rule, that if proceedings were dropt, “he would never do any thing of the sort again,” and that “he was convinced by what had fallen from his lordship, that he (Wakley) had

laboured under a mistake in the law*,” now tells us that “no tongue can utter, no pen can describe, the satisfaction he feels while reflecting on what must be the inevitable issue of this criminal information.” And how is this “inevitable issue” in the defendant’s favour to be procured? We call the attention of the Council—we call the attention of the profession, to the answer—it is *by placing in the witness-box the members of the Council themselves*. This is the threat by which he would intimidate them into discontinuing the prosecution—this the means which he announces of securing victory. We have heard, and we hinted at the circumstance last week, that the Council, satisfied with establishing the illegality of the proceedings on the 8th March, and strengthened by the new code of bye-laws, were indifferent about proceeding further with the criminal information; and we offered it as our opinion, that the “headstrong folly” of their opponent left them no alternative *but* to proceed. Let them now look to it. If there be a man among them who cannot pass the ordeal, let him resign forthwith—if there be any general misdeeds to be disclosed, let all concerned acknowledge their dishonour—give up their halls to worthier occupants, and hide their shame in the retirement of private life. They have been branded as robbers of the public money—as petty swindlers—as cheating the pupils—and purloining every guinea that came into their hands—as neglectful of the interests of science, and disgracing the profession of which they ought to be the distinguished ornaments. They are threatened with a public examination, for the purpose of proving all this—and if they blench, the inference is obvious and unavoidable.

But do we speak thus from any doubt of their integrity? Far otherwise: we

* We give the passage as reported by Mr. Gurney. The edition of it published in the *Lancet* is falsified.

are perfectly satisfied that there are not in the profession more honourable men than those who form the Council of the College of Surgeons. Observe them: they are not individually unpopular—they are not individually suspected—they are not individually charged with the slightest dishonour. What a monstrous absurdity then it is, to suppose that men irreproachably honest in private life, are to become knaves the very moment they are placed in a public situation. What is it but the nature of the charter, their mode of election, and their irresponsibility?—these, and these alone, are the causes of that regard being withheld from the Council as a body, which is freely yielded to the individual members. Once more, then, we tell them, that the eyes of the profession are upon them; they have followed up the proceeding till they have been threatened with “the witness-box”; if they now desist, it will be received by all as a symptom—an acknowledgment of conscious guilt!

Two of those concerned in the riot have got off on payment of the costs incurred by the law proceedings; a third publicly disavows any concurrence in the sentiments of their *ex-dévant* leader. To be sure, as Wakley observes, the idea that a person of Mr. King’s “stamina” feels at all sensitive with respect to language directed against the Council, is rather of “risible tendency.” The purpose of both these individuals is evidently the same, but they seek their object by different means; the one by bullying, and the other by cowering submission. The former *must not* be suffered to succeed, but the latter is not worth punishing; his defection may not have originated in the most disinterested feelings, but the motives of a partisan so subordinate are not worthy of being weighed; he never was formidable, and if he had been, can never become so again. As to the bearing of the principal performer since the rule was made abso-

lute against him, it constitutes the most singular specimen of blustering and bathos that it has ever fallen to our lot to witness, and even rivals the vein of ancient Pistol himself. His words are strung together with the most singular disregard of their meaning, and one sentence follows another apparently without the least recollection on the part of the writer of that which had just gone before. We are informed in one clause that Lord Tenterden, speaking of the riot, “declares that our (*i. e.* Wakley’s) proceedings were contrary to law;” in the next the Council are asked, “are they so besotted—so steeped in folly, as to imagine the law is on their side?” and in the third it is said, “The law, we are ready to admit, is not wholly against the Council.” We are told that the judges can alone give validity to new bye-laws; and again, that they have no such power; and, finally, that the whole is “a tale for fools!” In short, things are said and unsaid, and said again, just as suits the purpose of the moment, not only without any regard to truth, but without any attention to verisimilitude, constituting such a mass of absurdity and contradiction, as never proceeded before from any one that was not beside himself, or within the walls of bedlam. To follow such rhapsodies with any view to answer them, would be an insult to the understanding of our readers; they can make no impression except on fools or madmen, and we reason not with either.

The matter at present stands thus—the judges have determined that the riot in the theatre of the College of Surgeons, on the 8th of March, was unprovoked and illegal; and it will remain for a jury merely to decide, whether the parties named in the informations were concerned in that act or not. That is the only point with which they have to do. If found guilty, the culprits are

brought up for judgment, the Court prescribing the amount of their punishment, and this usually consists in imprisonment and fine.

The nature of the defence offered is, that the parties accused did not excite the riot; and Mr. Wakley, in his affidavit, which was read in Court, declares, that he did not create any disturbance in the theatre—that he did not say that there should be no lecture till he was heard, &c. &c.; while Mr. King swears that his object was to address those who were making a noise, *with a view to restoring order, &c.*; specimens of a mode of defence, on which the Attorney General commented in terms of the strongest contempt and indignation. Those who were present on the 8th of March will have their own opinions of the veracity of the deponents, and will not fail to draw their own conclusions.

A perusal of our report of the argument *in banco* (for the correctness of which we pledge ourselves), will shew the extent to which facts have been perverted by our contemporary: as an illustration, we may mention, that he represents Lord Tenterden as having said, that the members of the College were not entitled to use the theatre except for “corporate purposes;” thereby inducing his readers to believe that his lordship meant, that if the object of the discussion could be proved to be “corporate,” the members would have had unquestionably a right to carry it on. Now, Lord Tenterden never said anything of the kind; his words were—after Mr Platt had been saying that the impression on the minds of the rioters was that they had a right to discuss any proceedings in that hall—“There can be no question (said his lordship) that it could not be applied for such a purpose.” And so with other passages wilfully garbled in a similar manner.

The trial cannot come on before October or November, and this is much to be regretted, because the

Council are necessarily prohibited, during this long interval, from making the members acquainted with their views on the question at issue, and with their plans and sentiments generally. Their hands are now so much strengthened by the establishment of the rule, and by their new bye-laws, that they may well afford to make some concession to the general wishes. A change in some essential points is loudly called for. Let the mode of election be amended, and let the statement of their accounts be annually published; and we are confident that the present Council would immediately become extremely popular. Alas! for those turbulent spirits, how they retard, and stand in the way of improvement and reform. Some reform is desired, most earnestly desired, by ninety-nine out of every hundred members; yet, because a few have used it as the watch-word of anarchy and misrule, they shrink back, content rather to tolerate what they dislike than run the risk of having their names connected with those, from a contact with whom few are so low as not to feel that they would experience degradation. But for the impertinent interference of men, all of whom are unknown to science, and some of whom are not even practitioners, the constitution of the College might have been the subject of amicable discussion between the Council and the leading persons among the general body. They might have met, one in a spirit of concession and the other of forbearance; arrangements mutually satisfactory might have been made; the friends of anarchy would have missed the pleasure of keeping up perpetual agitation, and rendering the medical profession a by-word and a scorn to the public—who, be it remembered, never, in such cases, distinguish between right and wrong, between the respectable and those disappointed individuals who, failing of ad-

vancement in the beaten track, take any path to notoriety, however disreputable—however infamous it may be.

Let the subject be taken up by proper persons, and the consummation to which we allude, and which is so much to be desired, would be easy of attainment.

CHOLERA (?) IN 1683.

WE greatly doubt whether the disease so designated, which has recently prevailed in the Polish and Russian armies, be the same as that which has made such ravages in India: at all events, the proofs of their identity are by no means well ascertained. Be this as it may, it is a curious fact, that a malady, having many symptoms in common with the present, thinned the ranks of the army in Hungary during the 16th century. John Sobieski, King of Poland, in a letter to his wife, written shortly after the battle of Vienna, dated Sept. 28, 1683, and which we translate from Solvandez' History of Poland, thus expresses himself:—

“ — The half of our army is sick, and of a complaint as contagious as the plague itself: they call it the Hungarian fever. It is attended with looseness and discharge of blood; after which come vomiting, fainting, and delirium. Almost all our nobles and officers are quartered at Presbourg: many of them are already dead: and what seems extraordinary, the disease has re-appeared in some who had previously passed through it. God in his goodness will perhaps assuage our miseries: if they continue, there will need no other enemy to destroy us.” And again:—“ It is so strange a scourge, that just after seeing a man going about, and full of activity, you hear that he is already insensible, and beyond hope. We have remarked that intoxication was a means of safety.”

NEW MODE OF PROCURING SPIRITS.

A SIMPLE and ingenious method has lately been devised and carried into effect, by which flour, in the formation of bread, is made also to yield a certain quantity of alcohol. A tube communicates with the oven, in such a manner as to collect the vapour which rises from the bread during the process of baking. This is then conveyed to ano-

ther apartment, and made to pass through a worm surrounded by water, where it is condensed. The product is redistilled, and yields about three-fourths of an ounce of spirit from each quartern loaf. A patent has been taken out for the contrivance, which is calculated to be of eminent service in reducing the price of bread. We understand that the quartern loaf may be prepared at from one-third to one-fourth under the usual price, by deducting the profit obtained on the spirit.

COURT OF KING'S BENCH, WESTMINSTER.

Tuesday, May 24th, 1831.

THE KING *versus* WAKLEY AND OTHERS.

Mr. Campbell, on behalf of *Mr. Wakley*, opened the proceedings. This was, he said, a rule calling upon four gentlemen, *Thomas Wakley*, *Thomas King*, *George Walker*, and *George Darby Dermott*, to shew cause why a criminal information should not be filed against them, for a conspiracy alleged to have been carried into effect upon the 14th of February and the 8th of March, to prevent a lecture being delivered in the hall of the College of Surgeons, in Lincoln's-inn-fields. The learned counsel then proceeded to shew cause for his client, by putting in *Wakley's affidavit**, and those of some other individuals connected with that gentleman, upon which *Mr. Campbell* commented at considerable length.

Mr. Platt, on the part of *Mr. Dermott*, endeavoured to prove that the whole of his client's interference in the riot of the 8th March was for the purpose of preserving order; and that the object of his letter subsequently to the Times newspaper was to correct what was, in his opinion, an erroneous report of the proceedings, and an impression which prevailed in the body, that they had a right to discuss any proceedings in that hall. *My Lord*, continued *Mr. Platt*, it may be said that their hall or theatre is for corporate purposes—

Lord Tenterden.—There can be no question that it could not be applied for such a purpose.

Mr. Platt.—After what your Lordship says, I will not contend that it might.

Lord Tenterden.—That is a very small part of the question. A place established for a particular purpose cannot be made a place of meeting for other purposes.

Mr. Campbell.—Whatever drops from your Lordship will be received with the utmost deference by every member of the College of

* *Wakley's affidavit* is certainly a most curious document. He denies in it, among other things, that he convened any meeting at the theatre of the College—that he created any noise or disturbance there on the 8th of March—that he used any expression to this purport, “ If I am not heard, I will take care that there shall be no lecture;” and all this upon his solemn oath!

Surgeons. They never contended that they could apply their hall to any purpose unconnected with the profession. They could not debate there the question of Parliamentary reform; but yet they apprehended that they might apply it to any purpose connected with the profession.

Lord Tenterden.—I think you put it too largely. It must be applied only to purposes for which the corporation, as a corporation, use it. If you go beyond that, it is difficult to draw a line.

Mr. Platt.—With regard to that, I was about to say, that it might be deemed a question with regard to the corporate body of surgeons at large; and all I mean to say is, that it was not a matter so clear that no doubt would be entertained respecting it.

Lord Tenterden.—I have not said that it was. You mentioned that as a point of law; but I apprehend it is a very small part of the case before us.

Mr. Platt.—Then I contend before your Lordships, that there might be an impression upon the mind of those who did interfere upon that occasion, even those that were concerned in that disorder, that they had a right so to do; and if that be so, though it might be illegal so to use the hall, I apprehend that upon that ground the rule could not be made absolute against these parties; and if not absolute against Mr. Wakley, *a fortiori* not against Mr. Dermott.

Lord Tenterden.—Is not the object of the rule answered, if it is understood that there shall be no repetition of any thing of this sort?

Mr. Attorney General.—No. We have no reason to think, from any thing that has occurred since, that it will stop here.

Sir James Scarlett.—What has occurred since shews the spirit that prevails on the other side.

Lord Tenterden.—Go on.

Mr. Campbell.—I am sure whatever your Lordship lays down as the law will be most respectfully acquiesced in by every body.

Sir James Scarlett.—I am sure you know that, as far as my learned friend's private sentiments are concerned, he will concur in the statement that the President and Council have done their duty; but he is instructed to abuse the whole body of them in open court.

Mr. Campbell.—I am instructed to say by Mr. Wakley, who is here present, that after what has been laid down, he will most unquestionably never do any thing of the sort again. He says, in his affidavit, that he thought he was fully justified in all that he did; *he finds, however, from what your Lordship has laid down, that that was a mistake in the law.*

Mr. Attorney General.—No member of the College expressed any such opinion; and Mr. Wakley has endeavoured to enforce this

right in such a manner as to make him subject to be punished as a *libeller*, a *rioter*, and a *conspirator*.

Mr. Campbell.—Then I make no further concession; I ask nothing; I throw myself upon the Court, and I will throw myself upon a jury, if necessary.

Lord Tenterden.—Go on, Mr. Platt.

Mr. Campbell.—(With warmth.) It will be recollected that this comes after the language of Mr. Attorney General.

Lord Tenterden.—I am sorry that the zeal which seems to have pervaded some of the clients appears to animate the counsel also.

Mr. Attorney General.—Your lordship has not heard the language of Mr. Wakley yet—that has been kept most studiously out of sight.

Mr. Platt then proceeded with the argument for his client. He appealed to the short-hand writer's notes, which had been sworn to—from which he read the following passage. "President, 'I beg you will not interrupt the business of the day: I exhort you not to do it—to be quiet, and not to interrupt the business of the day.' The lecturer has begun. Cries of 'no! no! chair, chair!' Mr. Guthrie, 'I will confine myself entirely to the dry anatomy.' Cries of 'Wakley, Wakley, no, no!' Mr. Guthrie, 'in regard to'—(great uproar.) President, 'if you do not be quiet I must take other means to preserve order in the College.' Immense uproar, shouts, hisses—Chair, chair."

Lord Tenterden.—That is a description of riot and disturbance, at all events.

Sir James Scarlett.—This is to shew that there was no riot!

Mr. Platt concluded by arguing that in such a state of confusion it was impossible to bring home to his client, Mr. Dermott, the charge of concert and conspiracy.

Mr. Bodkin and *Mr. Saunders* appeared for Mr. Walker.

Mr. Austin, for Mr. King, attempted to justify that gentleman's conduct on the 14th February; and for the purpose of exculpating him from the charge of riot on the 8th of March, proceeded as follows:—Mr. Balfour states, that when the lecturer entered he was interrupted, and Mr. Keate also states that the lecture was interrupted by the body of persons in the theatre, and that those persons were gathered round Messrs. Wakley and King, and that Mr. King was pursuing that line of conduct which he was pursuing to prevent the lecturer being heard. Now the answer that Mr. King makes is this: he says, continuing what I was reading to your lordships just now—(his sworn deposition)—"but at length perceiving that no respect or attention whatever was paid to the president, and perceiving that the noise and confusion in the theatre was continually revived and supported by the persons in the gallery before-mentioned, he

(the deponent) could refrain no longer from attempting to obtain silence, and, in one of the intervals during which the uproar seemed somewhat subsided, addressed himself to the persons in the gallery, upon the injustice they were guilty of towards the lecturer, and the members of the College, by creating such confusion as to prevent any thing being done—but deponent's voice was instantly drowned, and rendered inaudible nearly to himself, by the cries, shouts, and hisses, that took place immediately upon his attempting to address them." Now what the shorthand writer states as to this part of the proceeding is this, and I can only observe, said Mr. Austin, that if it is to be any test at all, it bears out Mr. King's statement (!)—if not, *Mr. King's statement stands alone.* After the President had said, if you do not be quiet, I must take other means to preserve order in the College, &c. it appears there was great uproar, and shouts of chair! chair! "Mr. King, 'can any thing be so unjust'—(Loud uproar—cries of King, King—hear him, hear him.) Mr. King, 'can any thing be so unjust'—He is interrupted again. Mr. King, 'gentlemen, you will hear me.' Mr. Guthrie, 'Sir, in the observations I have had'—(Great confusion in the gallery.) Mr. King again, 'can any thing be so unjust'—(Uproar.) It was our intention'—(Uproar and laughter.) Mr. King, 'if we may not be protected'—I know, continued Mr. Austin, that my learned friends on the other side understand these expressions differently, but without sufficient reason. And as to the phrase imputed to him—"while there is a God in heaven I will stand forward," Mr. King denies on oath that he ever made use of the words. He says that he did use a strong expression of indignation at the time mentioned, but it was directed against the improper and licentious conduct of the persons in the gallery. Mr. Austin concluded by arguing, that though the conduct of his client undoubtedly amounted to indiscretion and imprudence, it could not be distorted into guilt, and he prayed that their lordships might not adopt the worst interpretation in the case of a gentleman like Mr. King, who had acquired no small professional eminence, and was quite surprised to find himself the object of a criminal prosecution.

Sir Thomas Denman was about to reply, when he was interrupted, and the Court adjourned by the Lord Chief Justice.

Lord Tentreden.—We must wait till tomorrow, Mr. Attorney-General, before we can hear you.

SECOND DAY.

Wednesday, 25th.

Mr. Attorney-General.—My Lord, I am only anxious, on the present occasion, that the real facts of this case should be laid before the Court, and I shall accompany the

statement with a very few observations. Indeed, the facts being once communicated to the Court, the persons in whose behalf I have the honour to appear will be quite satisfied with any view your Lordship may take of the case consistently with a regard to the public peace and the situation of the parties, who are members of a liberal and enlightened profession. It appears, my Lord, that several months ago an order was issued at Court which was supposed to affect the interests of the naval service: it was, that warrant officers should not, in that character, be admitted to his Majesty's levee. Mr. Campbell has thought fit to state that his Majesty, having been an ornament to the naval service, was averse to the order, and must have been delighted with finding that Mr. Wakley opposed it. It might have occurred to him, and to those he represented, that any order excluding persons from his Majesty's levee could not have been without his Majesty's sanction, and therefore that that statement could not be correct; but that probably it originated in a mere mistake, which would be removed in case of a decent and respectful application;—instead of which, the *Lancet* gave a notice, on the 12th of February, of the manner in which its conductor thought that this matter ought to be treated. On the 12th of February the *Lancet* says, "A memorial has been submitted to the Lords of the Admiralty on the subject of the *late insult*." . . . "In our opinion, the matter should be taken into consideration on Monday next, at the College of Surgeons, when the members will meet to hear the Hunterian oration. *The theatre belongs to the members*, and surely they cannot employ it for a better purpose than in making an attempt to rescue from insult a most important branch of the profession. We hope to be enabled to attend." Mr. Wakley further thinks proper to put forward in his affidavit that he is of opinion they have a full right to meet in the theatre, and that, *though the Council have power to pass bye-laws for the government of the College*, yet no bye-law can shut out the members from the discussion in that hall of that or any other subjects. That is the sort of right which he puts forward upon his affidavit. The other three gentlemen against whom the rule has been obtained make a similar statement as to the right, but it does not appear that any one member of the medical profession has thought fit to put forward a pretension so absurd as that which Mr. Wakley urges on coming forward to shew cause against this rule. [The learned gentleman then proceeded to shew the inapplicability of the case of *Rex v. Parkins* to the question at issue.] In that case there was strong presumption, founded on some of the most learned opinions, in favour of the defendant. Yet (continued Sir Thomas)

this is gravely brought before the Court as an authority on which your Lordships are asked to discharge this rule, because these four individuals are so rash and so unfit to form any opinion upon any point of law as (which they state in their affidavit) that they really believed they had a right to go and take possession of the College and interrupt the Hunterian lecture, and to discuss other subjects. Your Lordship disposed of that by one observation yesterday. *Your Lordship stated that there was no such right.* That is the great point which the College were desirous of bringing distinctly before your Lordship. I think it best that things should be called by their right names, and, that having been done, I shall be willing to leave it to your Lordship whether public decency can be preserved without this rule being made absolute. It appears that, on the 14th of February, Mr. King presented to Mr. Keate the resolutions which had been passed at that meeting before the oration began, both Mr. Wakley and Mr. King urging him to receive it; and that Mr. Keate said, that, after the oration was concluded, he would hear any thing they had to say; doing this, as it is stated, in order to induce them to suspend their confusion till after the lecture was over; assuring them that, as an individual, he, and indeed every member of the College, would be willing to do all in their power in order to relieve any part of the profession from what is deemed to be unpleasant; certainly going to the utmost extent of courtesy and attention to the profession at large in the concession he so made. From that time it appears, by Mr. Keate's affidavit, that he and Mr. King were in constant communication, and that, about the 22d of February, he wrote a letter, stating, "I have this day, according to my promise, laid before the Council of the Royal College of Surgeons the resolution and its duplicate, as conveyed to me in your letter of the 18th inst.; but, as I anticipated, and as I expressed to you my apprehension on the subject, the Council, I think I may say with one voice, decided that they were precluded, on the general ground of its irregularity, from acting on the document in question. There can be but little difference in the feelings and wishes of all our profession respecting the medical officers in the navy. I stated to you verbally, and in confidence, that steps had already been taken with a view of remedying the supposed grievance, and I may add also, in confidence, that I have been enabled to avail myself of opportunities which have offered for pleading their cause in the two highest quarters from whence redress can proceed. If I may be allowed to do so, I would fain express my wish and my hopes that no further interference may take place, as I am sure the cause will not be benefited

thereby; and I trust the profession may soon have reason to be convinced that no slight was intended towards them or towards the class most interested in this question." Upon the 5th of March, after this conciliating letter from Mr. Keate, expressing the greatest desire to do every thing which could serve the interest of the naval surgeons, and in spite of that letter, Mr. Wakley thinks proper to come out with another number of the *Lancet*, in which he announces that there is to be a full meeting, and tells the members of the profession how they ought to deal with that matter.

Mr. Kelly.—Where does that appear?

Lord Tenterden.—None of this appears, probably, upon the affidavits.

Mr. Attorney General.—My friend says that there was no communication between Mr. King and Mr. Wakley on this subject. It is a great imputation on Mr. King to suppose that that could be the case; it is a great reflection on Mr. King to suppose he had not made known to the Editor of the *Lancet* the letter which he had received. They do not deny that circumstance, nor enter into any explanation of it; and it is clear that it must have been known to all those who took, or pretended to take, an interest in this question of the naval surgeons. I will now advert to the *Lancet* of the 5th March, to which I wish to call your Lordship's attention, particularly as Mr. Kelly suggests that Mr. Wakley might have expressed himself with some feeling after he had been turned out by the police, deriving from that the angry tone to which it is fit your Lordship's attention should now be directed; it proceeds in these terms. [Here the learned Counsel read some passages of scurrilous and abusive ribaldry from the publication in question, upon which he proceeded to observe], and this is a man writing days before the meeting, not a foolish boy suddenly provoked in a school, where a little intemperance of language may be excused, but a man who undertakes to prepare the members of his profession to act as "honourable men and gentlemen, and men of education, and rank, and character;" in a discussion in which, he says, their respectability is involved. This respectable champion tells them, they are not to allow their ardour to be checked; "their own theatre is still open to them, and as the Council have refused to apply to the Lords of the Admiralty"—your Lordship cannot doubt that that is a falsehood, and that it was known to be a falsehood, to the persons who wrote it.

Mr. Campbell.—I say it is true the Council refused to apply.

Mr. Attorney-General.—I am surprised that my learned friend should say that, when Mr. Keate stated that there were means taking: what does my learned friend mean, then?

Mr. Campbell.—Mr. Keate stated, that individually he would interpose; but it is stated, in Mr. Keate's own letter, that they unanimously refused to interfere.

Mr. Attorney-General.—Does my learned friend think that that is the least answer to my observation? Does he really think he has relieved Mr. Wakley from the charge of direct falsehood? Mr. Keate had written to Mr. King, and he had communicated the letter to Mr. Wakley: "the Council cannot act upon your document; they wish you to make the statement in the shape of a memorial. I tell you confidentially, as an individual, that measures are being taken, and shall be taken, to remove this inconvenience of which they complain." *Such a quibble is quite worthy of that untruth which it is sought to cloud; and I think it may be as well for my learned friend to allow me to go on with these affidavits, without making interruptions of the class of those he has now offered. I say it is impossible for Mr. Wakley not to have known that application had been made by Mr. King, and I say Mr. Wakley knew that Mr. Keate had given that answer, and kept that back from the excited minds of those men in the profession who were to meet at the delivery of the lecture on the 8th of March. This is the greatest possible aggravation of that most ungentleman-like conduct, which it is almost a compliment to call by that name, when one connects it with such abominable libels as my learned friend is now holding in his hand, and laughing at. "Their own theatre is still open to them." It is always "their own theatre;"—and as the Council have refused to apply to the Lords of the Admiralty"—[here Sir Thomas read more of the *Lancet* ribaldry, written preparatory to the riot]. All this my learned friend would have your Lordship suppose—and you would have supposed, if we had not, at your Lordship's inconvenience, prevented it—it would have gone forth, that this was all under provocation, in consequence of Mr. Wakley being turned out by the policemen, and that no offence had been given, or any language used by him and his party, that was not perfectly honourable, and such as was to be expected from men of "rank and character, and education and knowledge"—in fact, that all the remarks in the *Lancet*, previous to the turning out of Mr. Wakley by the policemen, were of the most conciliatory nature, and such as to shew the good temper of Mr. Wakley. This comes out on the 5th of March, and I think that your Lordship will be of opinion that the College did quite right in saying, "If you come here to enter into a discussion, we will not be encroached upon." It appears that they sent notes to Mr. King and Mr. Wakley, and they do not deny that they received those notes, and yet the relation given yesterday was, that they*

were quite astonished to find the doors not open till the appointed time! This meeting, then, took place on the 8th of March; and here we have a document set out, which has been the subject of a great deal of amusement—namely, the shorthand writer's note of the proceedings, no part of which is stated by any one of the defendants, or any of their affidavit-makers, to be incorrect in the slightest particular. My learned friends have laboured to shew how innocent the meeting was. It appears to me to have been as riotous a meeting as ever took place; that is clear from this report, which does not pretend to give an account of all which passed from all of them; for no human pen, no score of shorthand writers, could do that; but all which could be expected was, that he should give a correct report of what fell from those who took the lead in the business. Mr. King, it appears, was one of the most active persons there; he kept saying, "Can any thing be so unjust? can any thing be so unjust?" I find that he has sworn that he wished to prevent any noise taking place that might interrupt Mr. Guthrie delivering his lecture! He does not deny one thing. It appears that there was great uproar and laughter—upon which Mr. King said, "While there is a God in heaven, I will stand forward!" There is no denial of those words. Then they all pretend to state that this riot proceeded from the hisses of the students on the east side of the theatre; but who brought the students there? The students were brought by their invitation; and those who raise the storm, and bring it to those who would otherwise be peaceable, are liable for what happens in consequence. Each of these gentlemen, Mr. King, Mr. Walker, and Mr. Dermott, says that he was brought there without any previous concert or arrangement; but, by what appeared in the *Lancet*, there was certainly every thing which would prevent right feelings in the persons coming to take a part, and every thing that would tend to misapprehension and disturbance when they should be assembled. I will not waste the time of the court by entering into the despicable minutiae of a riot of this kind; no one person can see the whole, or report the whole. If my learned friend, Mr. Austin, supposes that it really can serve his client to refer to any particular part, he may do so; but by the resolution expressive of a vote of censure on the Council being presented in the presence of Mr. King, which he follows up by a speech the moment it is passed, it is clear that Mr. King, who was brought there by what he found in the *Lancet*, was a principal party. Mr. King says, "Mr. Chairman, Gentlemen, and Members of the College of Surgeons,"—the President and Council had at this time, from fear of insult, left the

place—"and in the term 'member,' I would include those gentlemen who are a little above us"—[the young men who were attending the hospital, and who had been excited to a riot of the most degrading species] "I suppose we shall have the honour of having them as colleagues, and I would address myself to them, if it were regular, as my colleagues here. I conceive they should, before they come into this theatre, think—which is all I can ask—think of the proceedings we are met to be engaged in." Now, then, what, I would ask, were the proceedings they were met to be engaged in? It had been announced in the *Lancet*, from time to time. Mr. King himself, knowing that the doors are to be opened at three, in the first place is told they shall not be opened till a quarter before four. He comes, and hears the atrocious speech of Mr. Wakley, and then he says, "I address you, gentlemen, as my future colleagues;" speaking to those young men in the galleries, who were assembled, as by sound of trumpet, to take their different parts in the proceedings. But there is another affidavit conclusive—the affidavit of the policeman who came in to remove Mr. Wakley, who found he had not force enough to remove him. The expression of Mr. Wakley is, that he would not go without loss of life; that if he had fire-arms he would have used them! All this shews the animus of the ring-leaders. My learned friend anticipates a trial in this case with marvellous confidence, and says, "I will go before a jury." That is the very thing we are applying for. I know my learned friend has great charms with a jury; Mr. Wakley may have great charms with a jury, too; but I do not believe there is any jury of twelve men, returned by the sheriff or by any present or future coroner, who can hesitate about the matter. It is a great libel on a jury to suppose that when they are called upon to determine right or wrong, they will come prepared by these publications to give a verdict for those who have been guilty of a breach of the law—that they will shrink from doing their duty as jurymen, and give a verdict contrary to truth. I stand between the juries of England and the calumnious supposition of that sort which my friend's observation might serve to cast upon them; I know that the twelve men will come into the jury-box, and will do their duty, and that they will not shrink because there may be some popular topics and impressions about the *freedom of the press*—when the freedom of the press, acted upon as it is here, goes to inflict a most torturing, and the most harassing and ruinous persecution, on any individuals it may think proper to run down. I say that the College of Surgeons are clearly performing the duty incumbent upon them, by resisting

such attempts as those on the part of Mr. Wakley, calling in to his aid the worst passions of those whom he excites. My Lord. I omitted the statement of one circumstance which Mr. Wakley, in fact, admits to have taken place in the theatre—that when at last the policeman came to take him from the place where he was, he appealed to the whole assembly, saying, "If you will submit to this, you will submit to every kind of degradation!"—that "they only wished to have the quiet use of their own theatre"—and a very quiet use of it it would be, when they had put out all the persons who were in it, *just as if a felon should enter a house, saying we wish only to have an opportunity of rifling the butler's pantry and taking away all the plate, and then we will leave, and go as quietly as men can possibly go; so, according to the opinion of these gentlemen who make affidavits, if you would but have permitted them to have their way—if you would have given up the compliances with Mr. Hunter's will, which required this lecture, and have allowed them to discuss their measures after their own fashion, the whole would have passed over very quietly.* [The learned Attorney-General then proceeded to read and comment on various passages published in the *Lancet* at subsequent dates, in which the defendants assert to the last that the hall is their own, and that they have only to turn the members out by the shoulder and to take possession of the building, and employ it for their own objects.] This (continued Sir Thomas) is the animus which runs through the whole. And now, my Lord, every point in the case has been taken up and carried through, even after your Lordship pronounced the law upon the subject—that they had no right to make this use of the theatre. All these circumstances will have an effect upon your Lordship's judgment, in inducing you to consider it right to make this rule absolute; because, if they had come in the first instance, and said we are now convinced that a mistake has taken place—that the President and Council had that authority, and that we had no right to come and interrupt the oration, or lecture, without their express permission—that having been suggested in the outset, the College would have been extremely reluctant to bring forward any particulars which reflected on the members of the College. But when you find, at the very last moment, it is to be brought out, as a matter of hardihood, that the gentlemen will not be satisfied without the rule being discharged with costs—that the College are to be held as guilty of instituting persecuting proceedings—I feel that I am only doing my duty in bringing the whole of the facts before your Lordship. I conceive that it is absolutely necessary, for the example of all the other surgeons in the metropolis, that

this should be brought distinctly before your Lordship, and that your Lordship will think we are only doing that which is right. If this is met on the other side by an assertion of right, I conceive that there can be no doubt that your Lordship will say this rule must be made absolute, and that every one will say that the learned body whom I have the honour to represent this day have done but their duty in bringing it forward.

Sir James Scarlett.—I had the honour of submitting this motion originally to your Lordship; and I then took the liberty of stating that the gentlemen on whose behalf I was instructed to apply felt great pain and reluctance in bringing it for your Lordship's consideration; that they felt no personal ill-will, no personal malice, against any of those individuals; but that they thought they were discharging a public duty by protecting the Institution over which they presided from the continual insults to which it was subjected. My learned friends have taken great pains to shew that their clients have not offended, and that there are negative facts—that there are negatives pregnant in their favour—because they all declare that they did not do so and so with the motive charged. They do not deny the facts simpliciter, that they did not make a noise and disturbance, and resistance, as they say, but that they did not do so in concert. This rule calls upon them to answer for it, whether they did it in concert or not; and upon that they did they are to be judged, and by those circumstances which passed, whether they did it in concert or not. It is not necessary that Mr. Wakley, Mr. King, Mr. Walker, and Mr. Dermott, should have met in the office of the *Lancet*, for the purpose of agreeing that they should take such and such measures; if, by their unanimity of action they shew an unity of design, and if they concur in doing that which is unlawful, that is a sufficient evidence of conspiracy. I remember a case, not many years ago, in which an application was made by the then Attorney-General (Sir Vicary Gibbs) for an information on behalf of the proprietors of the theatre of Liverpool, in consequence of a riot in their theatre, with personal violence, interrupting the performance; and in which there was a cracking of nuts, with other matters of the same nature, on the part of the audience. It was tried at Lancaster, before Mr. Baron Graham. I had occasion to appear on behalf of the proprietors of the theatre. Mr. Lee, I recollect, was one of them. I remember an attempt was made by the different defendants to say they had no concert. They appeared, as to day, by learned Counsel, though it appears that they are furnished with but one copy of the affidavits. We are informed of this circumstance by the officer of the Court, and the benefit of it is distributed among them. But, upon that occasion, Mr.

Baron Graham said, "How can you say this is no conspiracy; when, in fact, the defendants attend the theatre, there are a number of nuts brought to the theatre and cracked, and it appears there was a peculiar kind of whistle when the nuts were cracked?" The learned Judge said they were all *brauthing together* through their nuts. There was no evidence of previous acquaintance, but it was because they acted in concert when they were there that they were brought within the charge made upon them. So it is said there is evidence of conspiracy here. Their object was not to assist the naval surgeons; they cannot rest on that flimsy pretext for their conduct; it was to insult the President and Council. They knew that the President and Council were taking means to relieve the naval surgeons from what they considered a grievance, but they did not think that the theatre of their College was a fit place for a political discussion as to whom his Majesty should admit to his levee; and it was well known what the President had done, but they would not listen to it, but Mr. Wakley called these persons together by a note in his publication previous to the 14th of February. On the 14th they assembled. [Our space will not allow us to follow Sir James Scarlett in his description of the proceedings, but we may give some part of his remarks on the riot.] It appears by the short-hand writer's notes, that, before four o'clock, on the 8th March, in the theatre of the College, Mr. Wakley began by setting at defiance the authority of the President, refusing to hear him, and declaring that no lecture should take place until he (Mr. Wakley) had been heard. The President insists on the lecture proceeding, and exhorts the disturbers to pause; and here the short-hand writer's note exhibits the scene which took place. There is an attempt on the part of the President and Council to support their authority, but in this they are completely baffled. On the President saying, "I exhort you to let the lecture go on; I beg, I pray of you, and entreat you not to interrupt the business of the day;" there are cries, "After Wakley—No, no—Chair, chair!" My learned friend, Mr. Campbell, says I compared it to the O. P. riots. No such thing. I said *one of the policemen stated, in his affidavit, that he had never seen any thing like it*, "except upon occasion of an attempt to raise the prices of admission at Covent Garden Theatre, many years ago;" which, if any one had seen, he would be aware was sufficiently alarming, and such as it was the bounden duty of the President and Council to put down. To say that there was no previous design in the business, is preposterous. I will give your Lordship Mr. Walker's speech upon being put into the chair. "Gentlemen, as I have just now been named—I am quite unaccustomed to preside at public meetings; but I feel per-

suaed that this meeting, which is met, as you know, to befriend and support naval surgeons, or rather assistant-surgeons—(cries of both)—will be carried on quietly and respectfully; and I hope that every member will give to each, though his enemy, the right of a fair and patient hearing; for without that, if we have any noise and confusion, you only injure *the cause you have met here to uphold*. It is not by noise and uproar we shall gain any thing—it is only by submitting our cause patiently and respectfully; and I shall be happy to hear any thing any gentleman may say." He admits, then, that they did meet for that purpose—he takes the proper course for inviting a discussion on that subject—and yet he says there was no concert at all between them. Then Mr. King himself admits he made a speech, stating that he was there to uphold the naval surgeons, who had been neglected and oppressed by the President and Council; thus adding to the insult upon the President and the Council. So much for Mr. King and Mr. Walker. Now as to Mr. Dermott: it is sworn in our affidavit that Mr. Dermott took an active part; that his voice was very loud, and that he took an active part. We do not say that these were the only persons concerned; we have only selected those who may be considered as having taken the lead. [The learned gentleman concluded with some remarks on the case of *Rex v Parkins*, and the case of the prosecution of certain rioters by Macklin the comedian.]

Mr. Pollock and Mr. Follett briefly argued on the same side.

Lord Tenterden.—The rule calls on four persons—namely, Thomas Wakley, Thomas King, George Walker, and George Darby Dermott—to shew cause why one or more information or informations should not be exhibited against them, for certain misdemeanors. After the discussion which has taken place, and the manner in which the affidavits have been stated to us, on the one side and the other, we think that it is the duty of the Court to make this rule absolute, as against two persons—namely, Mr. Thomas Wakley and Mr. Thomas King; and we think we ought to discharge it as against the other two. With respect to Dermott, it appears that he was not present at the meeting on the 14th of February: he was present at the meeting on the 8th of March;—he does not appear to have taken any very active part. Walker was not present on the 14th of February, and on the 8th of March he did not arrive, according to his own affidavit, until after the President and Directors had withdrawn. We therefore distinguish the case of those two persons, and make the rule absolute as against the other two.

Mr. Platt.—Does not your Lordship think it ought to be discharged with costs, as against Dermott?

Lord Tenterden.—Oh dear, no; there is quite sufficient to support the application.—(Laughter.)

REPORTS OF CASES OCCURRING AT PUBLIC INSTITUTIONS.

MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY.

ANEURISM OF THE ABDOMINAL AORTA.

Case of, treated by Mr. Hamilton under the superintendence of Dr. Graves—with Mr. Hamilton's Remarks.*

P. SAINT, æt. 34, a butcher, pale and emaciated, with an anxious expression of countenance, was admitted into the hospital on the 5th of Nov. last. He complains of weakness in the loins, with pain in the left groin and hip, extending down the anterior part of the thigh as far as the knee, with a sensation of numbness and coldness. These parts are not tender on pressure, and he can put his foot firmly to the ground, but walks a little lamely, and only for a short time, as the severity of the pain is greatly increased. It is worse at night. He has been troubled with this affection five weeks, and it was chiefly for it that he entered the hospital.

On further inquiry, however, he states that a year and a half ago, while straining to lift a four-gallon vessel to a man above him, he suddenly felt a very severe pain in the pit of the stomach, which did not, however, oblige him to desist. The pain remained but for a few minutes. After this he continued in tolerably good health, until rather more than a year since, when, after much exposure to wet, he was seized with shivering, followed by burning pain in epigastrium, and vomiting, with pulsation and palpitation of the heart. Since that time he has been in an uninterrupted state of ill health, and has been affected with lowness of spirits, lassitude, watching, or else sleep attended with startings and troubled dreams, an occasional tendency to fainting, costiveness, and irritability of stomach, rejecting animal food and broths. A fortnight since he first felt a pain and throbbing in the situation of the left kidney.

On examining the epigastrium a diffused swelling is perceived, in which, by means of the stethoscope, bruit-de-soufflet is audible, and the pulsation so strong as to lift the head with considerable force at each impulse. This extends in some measure into the left hypochondrium, at the lateral and inferior part of which, and just below the ribs, a somewhat hard and irregular mass of the

* It will be recollected that this is the gentleman who carried off the highest prize at the late competition for honours in the Meath Hospital.—See Med. Gaz. page 248, present volume.

size of the palm of the hand can be felt, and pulsation traced along the inferior margin of the ribs to the situation of left kidney, where it becomes very evident. There is a considerable portion of the left hypochondrium, apparently occupied by a part of the stomach, in which no pulsation is discernible. The pulsation in the epigastrium is more evident when he lies on his back, becoming less so when he sits up, or lies on his right or left side: it is this last on which he prefers to lie or sleep, as he cannot bear the pressure of his arm on his left side when he lies on his right, and, when he goes to sleep on his back, he is troubled with nightmare. Indeed, the men in the ward are frequently disturbed by his moaning in his sleep, and cries of "Get off, get off," as he fancies some person to be lying on his chest.

Sound of the heart perceptible over the whole chest, impulse not stronger than natural; pulse 99, full and hard, feeling like a cord; no cough or difficulty of breathing; bowels very costive; urinary secretion natural.

Nov. 6th.—*Olei Ricini* \mathfrak{z} j. *Tinct. Sennæ* \mathfrak{z} ss. *Hir. xii.* tumori in epigastrio.

The leech-bites bled considerably. On the 8th, both the leeches and castor oil were ordered to be repeated.

9th.—Profuse bleeding from the leech-bites, which has weakened him very much; pain in the loins gone; he remarked that he felt as if the victuals stopped at the left kidney, and that the ease he always experienced after the operation of purging medicine was chiefly to be attributed to its removing the obstruction; slept little; and, in spite of hæmorrhage from leech-bites, pulse still somewhat hard, 76.

Haust. Efferves. et Tinct. Digitalis gtt. x. ter in die.

He continued in the use of the digitalis, with some alleviation of his symptoms and reduction of the force of the circulation, till the 14th.

14th.—Slept little from pain in the hip, but more from a feeling of general uneasiness. He has experienced a degree of chilliness over him for the last few days.

Omit. Digit. et sumat. *Haust. Oleosus et Guttata Nigra*, gtt. xiii. horâ somni.

Digitalis was resumed the next day.

18th.—On making a careful examination of the aneurismal tumor, it is found to be rather to the right side of the epigastrium, extending somewhat into the right hypochondrium. There is no pulsation in the left hypochondrium, where the hard mass still remains, and is slightly enlarged. Pulsation is discernible from this to the left lumbar region, where the pulsating tumor in the situation of left kidney feels hard and circumscribed. The action in all these places

and of the heart is considerably less than when he entered the hospital, and he is himself considerably better*. The femoral arteries were examined, but no difference could be discovered in their pulsation.

Rep. Digitalis.

19th.—Did not sleep from pain in the left loin and hip, which he declares to be worse than ever; pulse 64, full, hard, and labouring.

Rep. Digit.

20th.—Feels very languid, with some heaviness in the head; pain in loins and hip very severe; slept little, but sweated considerably during the night; pulse 69.

Omit. Digit.

22d.—Got no sleep during the night from pain in the thigh; *Tinct. Digitalis*; (pulse dicrotous.)

23d.—The tumor below the ribs in left hypochondrium is now greatly enlarged, reaching from the ribs to near the crest of the ilium. He complains of considerable pain in the left side, particularly along the ribs, and got scarcely any sleep from pain and a most distressing uneasiness, changing constantly from side to side. He appears greatly dejected; pulse slow; bowels costive.

Haust. Oleos. Digitalis to be omitted, as it brought on pain and cramps in the stomach.

24th.—Did not sleep during the night from pain in the lumbar region and down the anterior part of the thigh, now more severe than ever. The hard tumor in the left hypochondrium has increased to an enormous size, not only extending from the ribs to the crest of the ilium, but forward to a line drawn from the sternum through the umbilicus to near the pubes, so that a great portion of the left side of the abdomen is occupied by a hard mass, faintly pushed up by a pulsation from beneath; it is slightly raised above the right side, which feels soft; the hardness extends into the left lumbar region, and this part feels very uneven. The pulsation formerly in the epigastrium is now entirely confined to a part of the right hypochondrium, and is greatly diminished in extent and strength. His countenance is expressive of great anxiety, and he shed tears while telling his symptoms to Dr. Graves. He is

* On his first entrance, and twice after, the aneurismal tumor occupied exactly that situation in the epigastrium described at first; but with these exceptions, during greater part of the time he was in the hospital, it was situated more in the part described in the report of the 18th. I never found it in exactly the same situation, probably in consequence of a more or less distended state of the stomach; and latterly, as the coagulum under the left ribs increased, it diminished, and went more to the right side.

in great pain, and appears averse to lie down; the position he prefers most is that of sitting with his body bent forwards, the abdomen resting on the thighs. Yesterday he took two doses of castor oil without effect till this morning, when he had one stool. Pulse 86, hard and full.

Hab. Gutta. Nig. gtt. x. quater in die.
Enema purgans.

25th.—Appears languid and dull; slept well, the black drop having completely relieved the pain, but made him vomit. The appearance of abdomen quite changed from yesterday, the left side having regained its natural appearance and softness, with the exception of the left lateral umbilical region; at the left side, just below the ribs, a strongly pulsating tumor, larger than the fist, projects; the lower part of left lumbar region feels irregularly hard, and is very tender; pulsation in epigastrium is again very strong, and can now, for the first time, be felt in left hypogastrium; pulse full and strong; pain in hip and thigh intense; vomiting.

Opii, gr. ss. quater in die.

26th.—Countenance expressive of despair; deadly pale; lips blanched. Yesterday, about 2 o'clock, was suddenly seized with the most intolerable pain in the left groin, making him scream out with agony, and instantly jump from his bed: it continued about five minutes. Mr. Parr, who saw him, found a diffused swelling of the groin, with obscure pulsation. He got two anodyne injections. The pain returned again on his making some motion, in consequence of which he has been during the night, and is now, lying with the left lower extremity semiflexed, the toe turned out, and the outside of the thigh and leg resting on the bed. The groin presents a diffused swelling, but no pulsation; the tumor in epigastrium beats strongly. From his position, the left side and lumbar region could not be examined. Pulse soft, quick, and fluttering. Has almost every instant vomiting, or rather a gulping up of the contents of the stomach. Took the opium, but did not sleep; great thirst; dimness of vision.

On returning, after being away a quarter of an hour, I found he had been seized with acute pain in the left lumbar region, which is greatly distended, and pulsating strongly. He is now constantly repeating the same words over and over, and changing from side to side, expressing a great desire for an injection. His whole body, and the bedclothes at a considerable distance, can be seen moved by the pulsations.

Died at two o'clock.

Post Mortem*. — Countenance perfectly placid. The yellow hue which the face had before death nearly disappeared. On opening the abdomen, the muscles and perito-

neum forming the anterior parietes were healthy, there being no effused blood found lying amongst them; all the intestines were healthy. After ligatures were placed round the esophagus and rectum, the whole digestive canal was removed, as well as the liver, spleen, pancreas, all which organs were healthy.

The serous membrane covering the lumbar and iliac regions on the left side was now seen pushed upwards and forwards by a considerable quantity of black newly-effused coagulated blood, which extended also into the left hypochondrium, pushing the spleen forwards and to the right side. The coagulum was thickest on the left lumbar region, extending over the front of the spine, and pushing the left kidney considerably forwards. The tissue of the left psoas and iliac muscles was infiltrated with black coagulated blood, which pressed upon the lumbar nerves as they enter the spinal foramina. In the most inferior parts, (in the angle formed by the sides, and along the sides of the psoas muscle), the coagulum was evidently the result of a more ancient effusion. It had lost its brilliant black colour, and had become brown, rough, fibrous, and was disposed in concentric layers, separable by a little force, but connected by numerous fibres (vascular?) At the left side of the spine, a little above the kidney, was found the sac, formed of dense white cellular tissue, and having a cavity nearly spherical, and capable of containing a small orange. This sac was perforated in two places, one rather to the left side, by which a large quantity of blood had escaped under the peritoneum, and the other communicating with the aorta, at its posterior part, and rather to the left side. On taking out the aorta, and slitting it up, its internal surface was seen sprinkled with numerous small plates of atheroma in various stages; and about half way between the coeliac axis and the inferior mesenteric artery, there was a perforation of the vessel, large enough to admit the little finger to pass through with ease, of an irregular oval figure, its largest axis being nearly parallel to the axis of the artery. The edges were very much thickened, but were not bony, though there was atheromatous deposition for a considerable distance round it. Thorax not examined. There existed on the cavity of the abdomen about a pint of pure serum. The vertebrae were corroded by the pressure of the aneurism, the intervertebral cartilages remaining uninjured.

REMARKS.—It is natural to expect from the situation which the abdominal aorta occupies, that any disease producing an enlargement of this artery, will be likely, by its pressure or displacement of the many important viscera and nerves in its vicinity, to cause a variety of symptoms, differing according to the nature of the part principally affected. We have, accordingly, in aneu-

* Mr. Hamilton wishes it to be known that he was unfortunately not present at the examination of the body.

ism of the abdominal aorta, irritability of stomach, spasms, pains in the abdomen, loins, thighs, &c. arising in a great measure from the mechanical effect of the tumor. Of these, the case of Patrick Saint affords many good examples; and as it is principally to it I wish to confine any remarks I may have to make, I shall briefly take notice of some of the most remarkable symptoms, and to do so the more clearly, speak, first, of the aneurismal tumor itself; secondly, of its effects on the parts within the abdomen; thirdly, of the constitutional symptoms and sensations.

1. With respect to the tumor, few cases could present more well-marked symptoms of the disease; the bruit de soufflet being very distinct, and the pulsation strong and extensive. From these signs alone it was at once recognized as a case of aneurism of the abdominal aorta, a diagnosis which the post-mortem examination proved to be fully correct—an aneurism being discovered of the kind always found where the abdominal aorta is the seat of the disease (an aneurism by dilatation in this situation not being, I believe, on record), in which the external cellular coat formed the sac; the internal and middle coats being ruptured. There can be little doubt but this lesion was occasioned by the effect which the patient is stated, in the history of his case, to have made, than which none could be named more likely to put the aorta on the stretch; a state which the inner and middle coats, then diseased, could not bear without giving way.

The pulsation in the loins, which appeared while the man was alive to have proceeded from a circumscribed collection of fluid blood, seems rather to have depended on the impulse of the artery communicated to the coagulum found in this situation; for it is not likely that blood would have remained fluid as long as the pulsation existed, without being in some kind of sac or cavity having a communication with the artery by which it could be constantly renewed; a condition well known to be necessary to its fluidity. Of the existence of any such sac there appears to be no evidence. The absence, or extreme faintness of bruit de soufflet, is now therefore accounted for.

Large as the coagula were, they would probably have been found still more so, had the examination been carried into the groin; as the agonizing pain felt there a day before his death can only be referred to the blood forcing its way under Poupart's ligament into the groin beneath the fascia, the anatomical disposition of which would be a check to its extending far down. When examined immediately after the pain was felt, pulsation could be discerned in the swelled groin; but the next morning, coagulation having taken place, nothing but the swelling could be perceived.

2. It may not be uninteresting to run over, as briefly as possible, the symptoms produced in this case by the tumor or coagula on the parts within the abdomen, particularly as their importance has lately been set forth very strongly; and it has been shewn, that even without an external pulsating tumor, they will be of themselves sufficient to lead us to a just diagnosis of this disease.

The most striking of these, and the most important, as having been very often observed in other cases, are the pain in the groin and hip, with the accompanying sense of numbness and coldness, and the pain and weakness in the left lumbar region. The first of these may reasonably be considered to have been produced by the pressure of the more ancient coagulum on the lumbar nerves, as well from the time the pain had continued, being about eight weeks before his death, as from the situation of the coagulum. It so nearly resembled another affection of the same part, that one gentleman, after a slight examination, considered it a case of inflammation of the anterior crural nerve. The only case, however, of this last disease which I have seen, presented many striking points of difference. In the first place, pain only appeared on flexion of the thigh, and then severely, causing considerable lameness, but if walking were persevered in, both pain and lameness disappeared: with Saint the pain was constant, not increased by flexion, but surely aggravated by any attempt at continued walking, confirming what has been laid down in the Dublin Hospital Reports, that these pains are generally increased by exercise, while rheumatic pains, on the other hand, are generally relieved by it.

The pain in the loins too (depending also on the pressure of a coagulum), is a symptom of great value, having been mentioned in almost every case of the disease on record. About it more mistakes have been made than about any other symptom. Nor can this be wondered at, considering the great variety of pains which affect this part; nor can it be expected but that great difficulty must always be experienced in distinguishing the pains symptomatic of this disease from the many others they often simulate so nearly. These considerations have induced a critical writer in the Edinburgh Medical and Surgical Journal to consider this symptom of pain in the back or loins of very little diagnostic value. I have no hesitation in saying, that there is little foundation for such an opinion. This writer has considered the symptom singly. Now any symptom of a disease, every one of which are well established, viewed in this manner, will be found useless, or nearly so. Cough, for instance, is a symptom of a number of different diseases, therefore taken by itself it becomes a precise symptom of none; so this pain in the loins, by itself, will be always more or less ambiguous, but with some

of the other symptoms, without which it scarcely ever occurs, its value is considerable. Two things may be observed regarding these pains—that they generally occur on the left side, and are accompanied by sensations of numbness and coldness, obviously arising from pressure on nerves.

Many mistakes have been made with respect to the symptomatic pains of aneurism of the abdominal aorta. In Dr. Beatty's case eight or nine medical men of talent and reputation mistook the disease. In Scarpa's case it was thought to be gravel, which it nearly resembled. Bertin gives two cases, both of which were mistaken. In the first there was very severe pain in the loins, extending down the sciatic nerve. The real nature of the complaint was only discovered after death, when two aneurisms were discovered, one in the thorax, and a large one occupying the situation of the left kidney.—In his second case, which is very interesting, as shewing the great danger that may follow a false diagnosis of this disease, the complaint, from the pain in the loins, had been marked in a former hospital as chronic lumbago. On coming under Bertin's care he got, for some gastric symptoms, an emetic; this brought on a violent vomiting, at last of blood, soon followed by death; and though he had been frequently examined in the loins, it was now only that the real cause of the pain was discovered to be a large abdominal aneurism. More instances, were it desirable, might be adduced. In this case there was an absence of both colic and spasms; the latter of which Dr. Beatty believes to be very rare, never having heard of any previous to his own case. His statement is borne out by the pretty general silence of authors about them, who have written on aneurism. Mr. W. Hamilton shewed me the case of a man of the name of Doyle, formerly in the Meath Hospital, in whom they occurred.

Not so constant a symptom in other cases, but in this a most distressing one, was the irritability of stomach. It appears to have been greater at one time than when he entered the hospital, and may have been so either from the tumor having been larger before effusion had taken place into the surrounding parts, or that the stomach had got more accustomed to the mechanical irritation afterwards. That the symptom itself proceeded from the mechanical effect of the aneurism, and not from any disease of the stomach, the healthy appearance of that viscus after death sufficiently proves. It is a pity it is not stated in the account of the post-mortem appearances, whether any effect was produced on the peritoneal covering of the stomach by the part of the aneurism usually in contact with it. Towards the end of the illness the rapidly-increasing coagulum in the left hypochondrium must have had con-

siderable effect in aggravating the irritability; and at that period we find it increased to a constant gulping up the contents of the stomach. For the other symptom, that of obstinate costiveness, it is hard to know what to consider as its cause. The man's own sensation of the food stopping at the kidney would rather lead to the conclusion that the coagulum there had some mechanical effect on some part of the bowels. The state of the stomach would be sufficient to induce costiveness, as also the altered or diminished secretions which would necessarily follow so great a derangement of the circulation. It is curious that though the kidney was so much displaced by the coagulum behind it, no change took place in its secretion, which was always healthy and in proper quantity.

One sensation only, as depending on the action of the aneurism on the parts within the abdomen, remains to be mentioned; it is that of a beating or pulsation within himself, which the man often described as one of his feelings. It is not put in the case, as appearing at first of little consequence; it has, however, since struck me, that, in connexion with the other symptoms, it may often be found useful as a diagnostic.

3. Very few words will suffice for the constitutional symptoms. There was a total absence of fever, as has been remarked in other cases. The chief symptoms were extreme restlessness, lassitude, and depression of spirits. It is impossible to say how much value can be attached to this class of symptoms. The cases given by authors are so deficient in other respects, that their silence on this head can go for little. I feel persuaded that the more this disease is studied, the more will these constitutional symptoms rise in importance. The expression of countenance alone, in the case we have just been considering, was so remarkable, that few painters could have entered the ward without stopping at this man's bed, and wishing to delineate a face, every feature of which was deeply impressed with the most hopeless despondency.

It will be seen that the pulse preserved its hardness till near the last. The action of the heart too, which was at first somewhat greater than natural, eventually came down to the average degree belonging to that organ.

ERRATA.

The following rather absurd error occurs at p. 317, in last No. Sir H. Halford is made to say, "I rest assured that you will receive in your heart the result of my long experience," &c. instead of, "I rest assured that you will receive in good part," &c.

Page 298, for "T. Millingen," read "J. (Julius) Millingen."

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OBSERVATIONS ON CALCULOUS DISEASES.

By B. C. BRODIE, F.R.S.

As delivered by him in his Surgical Lectures.

Treatment of Calculi of the Bladder, continued.

THE methods which I have hitherto explained are not applicable to calculi above a certain magnitude. We must resort to other expedients if we would relieve our patients of those which are of larger dimensions.

It has been observed by chemists that lithic acid admits of being dissolved by a strong solution of pure or caustic alkali. It has been also observed that calculi composed of the phosphates are acted on by the mineral acids; and it may not unreasonably be entertained as a question, how far those changes which take place out of the body may be produced while the calculus is still in the bladder of a living person?

This problem, of the solution of calculi by chemical agents, has occupied the minds of many individuals both in past and present times. It has been proposed by some to administer the menstruum by the mouth, so that it might be conveyed into the urine by the usual channels; and by others to inject it into the bladder, by means of a catheter. This subject is one of great interest, and well deserves our serious and unprejudiced consideration.

I fear that those who have expected by these methods to relieve patients of lithic acid calculi have much over-rated the effects of alkaline *lixivia* on them.

The fact is, that although alkalies certainly are capable of acting on this kind of calculus, their action, except when employed in a very concentrated form, is so inconsiderable, as to amount to almost nothing. Neither the stomach nor the bladder are capable of bearing the quantity of alkali which is necessary to the production of the desired effect; and even if they were, it would be impossible to maintain so constant a supply of the alkali as would be necessary to the destruction of a calculus of even moderate dimensions. Mr. Brande, moreover, has observed that the carbonates of potash and soda have no action on lithic acid; that they are incapable of dissolving it, and that, if the pure alkali be taken by the mouth, it never reaches the bladder in this state, but only in that of a carbonate: and here, then, is an insuperable objection to all the attempts to dissolve lithic acid calculi by means of alkalies taken into the stomach. When there is a lithic acid calculus in the bladder, and the lithic acid diathesis prevails in the system, the first effect of alkalies taken into the stomach is to render the urine neutral; thus preventing the further increase of the calculus. So far, then, alkalies are useful. But if they are administered in still larger quantity, so as to render the urine alkaline, the phosphates begin to be deposited. The calculus continues to grow even more rapidly than before; but its composition is altered, and layers of the triple phosphate are deposited on the lithic acid nucleus. Such is the view of the subject taken by Mr. Brande; and if you read what he has said on the subject in one of his papers on calculi (I believe the last), you

will, if I am not much mistaken, be satisfied that it is well founded.

But you will, not improbably, hear of cases in which it has been supposed that, under the use of alkaline medicines, calculi have come away by the urethra, broken down into fragments; and you will hear of others in which, under the same mode of treatment, the symptoms dependent on the calculus have vanished; and this circumstance has in itself been regarded as a sufficient proof of the calculus having been dissolved, although no calculus matter had ever been discovered in the urine. But none of these cases will stand the test of a critical inquiry. In those of the first order, the supposed fragments are, in reality, not the old stone dissolved, but a new formation. They are actually generated by the alkalies; the mischievous consequence of the indiscreet and unscientific exhibition of these remedies. Such cases, instead of adding to the laurels of surgery, only shew how this important and useful art may become a source of evil instead of good, when it falls into the hands of the inconsiderate or ignorant. With respect to the cases of the second order, you will observe, that, when you come to investigate them, you never find that the symptoms have altogether and completely subsided. There has been some diminution of them, but that is all; and various circumstances will explain whatever amendment has taken place. Thus a stone may become encysted which was not so originally. So it was, probably, in a case, the history of which I related in a former lecture. Another remarkable example of this occurrence presented itself to Sir Astley Cooper and myself. A gentleman, about sixty-six years of age, consulted us concerning a frequent desire to make water, attended with pain and other symptoms, such as a stone in the bladder might occasion. We had a suspicion that there was a stone in the bladder, and had purposed to examine the bladder with a sound. Before this was done, however, the symptoms began to subside, so that the patient suffered comparatively little inconvenience from them. About a year and a half afterwards he died of another, and wholly different, disease. On examining the body after death, we found, at the fundus of the bladder, a cyst formed by the protrusion of the mucous membrane between the muscu-

lar fibres; and in this cyst was lodged a calculus of the size of a hazel-nut, of which it seemed impossible to doubt that it had been the cause of all the distress which the patient had suffered formerly. Now let us suppose that, in such a case as this, the existence of the stone having been ascertained, the patient had gone through a course of alkaline medicine; would it not have been supposed by the patient and his friends that the alkalies had produced a cure?—and if the real circumstances had not been disclosed by a *post-mortem* examination, would not the case have been handed down, as affording an example of the great influence of alkalies over calculous disorders?

Another circumstance may occasion a considerable abatement of the symptoms of stone in the bladder, namely, an enlargement of the prostate gland. The more urgent symptoms produced by a calculus arise from its coming in contact with the internal orifice of the urethra. But where the prostate is enlarged, making a tumor projecting into the bladder, this is in great measure prevented. The calculus becomes lodged, as it were, in the hollow behind the tumor, and is thus, in some measure, prevented falling down on the neck of the bladder: and if the enlargement of the prostate supervenes on a stone in the bladder, the symptoms of the latter disease are likely to be, in no considerable degree, relieved. Sir Everard Home has published an account of two cases, the circumstances of which are, as it would seem, to be explained in this manner. These cases are especially interesting on this account,—that both of them had been published while the patients were yet alive, in proof of the efficacy of solvents. In each of them, the stones which were supposed to have been dissolved, were found in the bladder after death apparently unaltered.

The mineral acids undoubtedly exercise a much greater chemical action on calculi composed of the phosphates than alkalies do on those which are composed of lithic acid. It is not indeed possible to exhibit them by the mouth in such quantity as to render the urine sufficiently acid for the purposes of a solvent; but we have no right to conclude from thence, that they may not produce this effect if injected into the bladder by the urethra.

It is now some years since I first began a series of experiments on this subject. I injected into the bladder a solution of nitric acid in distilled water, in the proportion of one minim of the former to an ounce of the latter. As no inconvenience followed, I increased the quantity of nitric acid, until two minims, and sometimes two minims and a half, were contained in each ounce of the injection. The result was the same. Not only the patients did not suffer, but where chronic inflammation of the bladder was present, they experienced considerable relief of all their symptoms, the desire to make water becoming less frequent, and in particular the secretion of the ropy adhesive mucus from the coats of the bladder being very much diminished. I next endeavoured to ascertain to what extent a solution of this strength was capable of acting on a calculus composed of the mixed phosphates. The change produced was sufficiently obvious, especially when the solution was made to pass over the calculus in a stream for a considerable time. It gradually diminished in size, and at last began to be broken down into minute fragments. About this time an elderly gentleman consulted me under the following circumstances. He had laboured under stricture of the urethra for a great number of years. The stricture had been much neglected; and, at last, had produced the usual consequences, disease of the bladder, that is, chronic inflammation of its mucous membrane, and probably disease of the kidney also. The patient had an almost incessant desire to void his urine: every attempt to do so was attended with most excruciating pain; the urine, at the same time, being highly alkaline, offensive to the smell, depositing a large quantity of viscid mucus, with which were blended small particles of phosphate of lime, resembling mortar. He was drinking lime water, which some one had advised him to take, with great perseverance, and the more he drank, the more he suffered, and the more mortar came away. This, he thought, was all as it ought to be, and he expressed himself, as patients often do under the same circumstances, saying that, no doubt, it was better that the gravel should come away, and that the lime water must be doing him good. However, not being so well satisfied on this point, as my patient seemed to be, I advised

him to leave off the lime water. ~~The~~ symptoms were immediately altered for the better; but still they were bad enough. The next step was to introduce a catheter, and afterwards a sound into the bladder. When this was accomplished, which, on account of the contracted state of the urethra, was at first not without some difficulty, I at once detected a calculus. Here then was a case of calculus manifestly composed of the phosphates, arising out of a diseased state of the bladder, and a case in which the danger of an operation would have been so great, that a prudent surgeon would scarcely think himself justified in recommending it to the patient. Dr. Prout was consulted at my request, and he agreed with me in thinking that, under the peculiar circumstances of the case, it was one well fitted for the experiment which I had proposed with the nitric acid injection.

For this purpose I procured the catheter which I now show you. It is made of the purest gold which can be worked. It has a double channel, the two channels being separated from each other by a longitudinal septum running the whole length of the instrument. Each channel terminates by a distinct tube at the handle, and has a separate eye or opening at the other end of the catheter. By means of this instrument, you will observe that a liquid may be injected into the bladder, entering it by one passage, and flowing out of it by the other, so that there may be a current through the bladder, without that organ being inconveniently or painfully distended. I had contrived a complicated apparatus for the purpose of making the injection, but I found afterwards that the simpler contrivance of an elastic gum bottle, and an elastic gum tube, was better than any thing else. At first I washed out the bladder with some distilled water, to get rid of the mucus which was lodged in it. Then I injected the solution of nitric acid very slowly, using the same liquid over and over again several times. Always after the operation was performed, the liquid which had been employed as an injection was tested by the addition of a *highly concentrated* solution of pure ammonia; and it was always found that if the ammonia was added in a sufficient, but not too large a quantity, the phosphates were precipitated in abundance. The patient suffered no material inconve-

nience from this operation. It was continued sometimes for fifteen minutes, sometimes for half an hour, and repeated, according to circumstances, once in two, three, or four days. At last, in making water, the patient voided these two small calculi, composed of the phosphate of lime, with a small proportion of the triple phosphate. It was impossible to doubt that they had been acted on, and partly dissolved by the acid injection, and that they had at last come away by the urethra, in consequence of their having been thus reduced in size. For some time after this occurred the patient was in a state of comparative ease. He had still symptoms of stricture of the urethra and diseased bladder, but he was free from the more urgent symptoms under which he had laboured formerly. By degrees, however, these symptoms began to recur; and I have no doubt that there was a fresh formation of calculi, produced chiefly, as was the case with the former ones, by the diseased state of the bladder. If he had remained in London, I should probably have been able to give him some further relief, by repeating and continuing the use of the injection. But he went into the country, where, having been for a long time in a very bad state of general health, he at last died, as I was informed, of some disease not immediately connected with that on account of which I had been consulted.

Since the occurrence of this case, I have from time to time, as opportunities presented themselves, endeavoured to follow up the investigation. I hope at some future period that the observations which I have made may prove worthy of being presented in a more distinct form to the notice of the profession. At present I shall content myself with stating that the facts with which I have hitherto become acquainted appear to me to justify the following conclusions:—

1st. That where the mucous membrane is affected with chronic inflammation, the urine depositing a viscid alkaline mucus, a most beneficial change may be produced in the condition of the bladder by the injection of a weak solution of nitric acid into it.

2dly. That a calculus, composed externally of the phosphates, may be acted on by this injection so as to become gradually reduced in size, while it is still in the bladder of a living person.

3dly. That there is reason to believe that calculi, composed throughout of the mixed phosphates, such as are met with in some cases of diseased prostate gland and bladder, are capable of being entirely dissolved under this mode of treatment.

It is especially in cases of this last description that the nitric acid injection is likely to be employed with advantage; and let us not forget that there are no cases for which an improved method of treatment is more wanted than for these. Hitherto they have been the opprobrium of surgery, being unfitted, not only for the common operation of lithotomy, but also for the new lithotriptic operation which is practised in France by M. Civiale, and by Baron Heurteloup in this country.

Operation of Lithotomy.

I proceed to describe to you the method of extracting a calculus by means of an incision of the bladder. This is what is commonly called the operation of lithotomy. I shall draw your attention to the operation on the male sex first, and afterwards to that on the female.

You may make an opening into the bladder at its fundus; and this is what is meant when we speak of the high operation. You may also make the opening at the neck of the bladder. The experience of the great majority of surgeons, from the time of lithotomy having been first practised to the present day, is in favour of the latter method of operating; but as to the exact mode of making the incision at the neck of the bladder, there has been, and still is, a considerable variety of opinion. I shall explain to you what I am led to believe to be the most eligible method of performing the operation, endeavouring to establish, at the same time, the principles on which it is to be conducted; the observance of which will enable you to do all that belongs to human means towards the safety of your patient.

In order that the object of the operation may be clearly understood by those who have not yet studied the subject, I am accustomed to explain it in the following manner:

A small calculus may be voided by the urethra without an operation of any kind. A larger calculus is prevented coming away, because the urethra is too small to receive it. The obvious re-

medy for this is to dilate the urethra, to make it wider; and if it cannot be sufficiently dilated by the bougie, it must be dilated by the knife. But it is unnecessary to divide the urethra for this purpose through its whole extent. It is much easier to cut down on the urethra where it lies in the perinæum, and dilate the posterior portion of it, (which includes what is called the membranous part, and also that which lies imbedded in the prostate gland.) The stone may then be extracted through the wound in the perinæum, the greater part of the urethra remaining untouched and unhurt.

In performing this operation there are some things to be especially kept in view.

1st. The external incisions are to be made in such a manner as that there may be a sufficient space for the easy extraction of the calculus. Such a space does not exist between the two rami of the pubes, in the upper part of the perinæum. Neither will it be obtained by an incision made in a vertical direction, in the line of the raphe of the perinæum, unless indeed it be carried so low down as to divide the anus and a portion of the rectum. But if the incision be made obliquely, beginning at the raphe of the perineum, and extending laterally between the anus and the tuberosity of the ischium, there will be room, as far as the external parts are concerned, for the extraction of a very large calculus. Such an incision will manifestly answer the intended purpose, at the same time that it is not liable to the objections which may be urged against the incision made in the course of the raphe, and extending into the rectum.

2dly. The incisions are to be made so as to avoid any considerable and dangerous hæmorrhage. It is idle to say that the occurrence of such a hæmorrhage is an hypothetical evil. Even in a young person, with a small mass of substance in the perinæum, there are vessels which may bleed much, if divided. But the operation is frequently performed on persons advanced in life, who have a deep perinæum, that is, in whom a large quantity of soft parts must be divided before the knife can reach the bladder. The vessels of the perinæum are in them large in proportion; and an incision made with the utmost care will sometimes divide ves-

sels which will bleed profusely. On this account the incisions should not be made of a greater extent than is really necessary; especially in the deep parts of the perinæum, where the bleeding vessels are not so readily to be discovered, nor so easily commanded, as they are near the surface. With the same view the incisions should be low down in the perinæum, so that there may be as little risk as possible of wounding the artery of the bulb of the urethra; at the same time that care is taken not to carry them close to the ischium, where the trunk of the internal pudic artery is situated, and where its branches are, of course, of a larger size than at a greater distance from their origin.

3dly. It is, on other accounts, of great consequence that there should be no large incision of the neck of the bladder. The prostate gland is of a firm, dense structure; and when it is divided, the urine passes over the cut surface, without their being any danger of it penetrating into its substance, or into the neighbouring textures. But on the outside of the prostate, and neck of the bladder, is a loose cellular membrane, which, if the urine has access to it, may become infiltrated with it to a very great extent; and which, thus infiltrated, is likely to be rendered the seat of extensive inflammation, sloughing, and abscesses. It is important, therefore, that we should avoid carrying the incision beyond the boundaries of the prostate into this loose cellular membrane. It is true, that, if the stone which is to be extracted be beyond a certain magnitude, this cannot be avoided; but it may be avoided otherwise. Not only a small stone, but one above the average size, may be taken out of the bladder through a wound which does not extend beyond the limits which I have mentioned; and in many instances where, from the size of the stone, this cannot be accomplished by means of an incision confined to one side of the prostate, the object may be attained by making a double section, and dividing the prostate on both sides.

The dangers attendant on an extensive wound of the neck of the bladder, penetrating beyond the margin of the prostate, are not merely theoretical. As long ago as the year 1810, the case, which I am about to mention, first opened my eyes to the ill consequences arising from a communication being made

between the cavity of the bladder and the loose cellular membrane in which it is enveloped. I was present at an operation of lithotomy, performed by a very experienced and skilful surgeon. There seemed to be no difficulty in its performance, and the forceps were introduced only once into the bladder; but the bladder (as I suppose,) was in a contracted state, and the surgeon, in opening the forceps, observed a resistance, which suddenly gave way as if a ligature had been broken. In the evening the patient was apparently well, but during the night he had no sleep, and he complained exceedingly of hunger. On the following day, towards the afternoon, his abdomen became a good deal distended, and the pulse rose to 150 in a minute. He was low and desponding; his hands were cold, and his respiration frequent. During the following night (the second from the operation) these symptoms became aggravated. He had still no sleep; the pulse was more rapid and feeble; and on the following morning he died.

It fell to my lot to examine the body after death. In doing so I found that the mucous membrane and muscular tunick of the bladder had been ruptured for about the extent of three quarters of an inch. The rupture was situated on the left side, just anteriorly to the rectum, and it, of course, extended into the cellular membrane, on the outside of the bladder. The cellular membrane in the neighbourhood of the rupture, and for some distance upwards in the course of the ureter, had the appearance of being infiltrated with urine; it was inflamed and sloughy, and at the lower part, close to the bladder, its cells were occupied by a small quantity of pus.

In the year 1816 I met with the following case, which confirmed the suspicions which the preceding case had excited in my mind. A little boy, about a year old, was admitted into the hospital, labouring under stone in the bladder. I performed the operation for its extraction, making the incision of the prostate with a common scalpel. Having introduced my finger into the bladder I felt a very large stone, and at the same time found that I had made a very small incision. On this I introduced a probe-pointed bistoury, and dilated the wound, as I thought, sufficiently for the

easy extraction of the stone. On the following day the pulse was rapid; the patient was low and depressed; and from this time he continued to sink until he died, on the third day after the operation. On dissection, I found that the wound at the neck of the bladder had extended beyond the boundaries of the prostate gland. The cellular membrane in the neighbourhood had all the appearance of having been infiltrated with urine. It was in part inflamed, and in part in a state of slough, being converted into a substance resembling wet tow. There was nothing else to account for the patient's death.

Some time after the occurrence of this last case, I had the opportunity of perusing Scarpa's Memoir on the Cutting Gorget, and was gratified to find that the views which I had been led to form corresponded to those of this distinguished surgeon. That these views are correct, I cannot at this moment entertain the smallest doubt. They are supported by other cases which have fallen under my observation, in which the patients manifestly died from inflammation and sloughing of the loose cellular membrane surrounding the prostate and neck of the bladder. If any one who has had much experience in lithotomy will look back at the cases which he has met with, in which patients have died after the operation, he will, if I am not much mistaken, find that what I have just mentioned will explain many things which would be otherwise inexplicable; in particular, he will find an easy solution of the great danger which attends the extraction of very large calculi. He will also be enabled to comprehend wherefore it is that patients, on whom the operation is performed with the greatest apparent dexterity and ease, and in the shortest possible space of time, sometimes die in the course of two or three days after the operation, while others, in whom the stone appears to have been extracted with difficulty, recover without any unfavourable symptoms.

[To be continued.]

INDEPENDENT ACTION OF THE ARTERIES — PATHOLOGICAL CONSEQUENCES — PALPITATION — DROPSY, &c.

By DAVID BADHAM, M.B. OXON.

THE object I propose to myself in this paper is, to support the hypothesis—

1. That the arteries have, and exercise occasionally, a power of action essentially their own, by virtue of which they can contract and dilate independently of the heart.

2. That certain dropsies are referrible solely to an exaggeration of this action, which need not, however, be of an inflammatory character.

3. That various modifications of this same power offer at once an easy, and, indeed, the only satisfactory explanation that can be given, of the want of correspondence occasionally observed between the rhythm and force of pulsation of the heart and arteries.

I. The first position, I think, is nearly established by the following considerations:—1. That hypertrophy of the left ventricle, united with a weak pulse—a real and ascertained condition in disease—cannot be explained without the supposition of such a power*. 2. The dilatation of the same ventricle, with a weak pulse, which is sometimes met with, requires the supposition of such a power. 3. The occasional want of correspondence, even in health, between the strength of the arterial pulse at the wrist and the heart's impulse, is not explicable upon any other principle. 4. The occasional difference in the strength of the arterial pulse at the two sides of the body, also seems to shew that the pulsations recognised by the finger do not alone proceed from the force with which the blood is

forced into them respectively, or they would not be unequal in strength. Can it be better explained, or otherwise explained, than by an inherent power of the arteries, which happens to be differently excited on the two sides? 5. Regularity of the arterial pulse, with irregularity of the heart's action (as where the former is 40, the latter 140, in a minute; and this is not an hypothetical condition), seems to demand an independent agency of the former. To all which considerations it might be added (if we assume with the physiologists of the chemical school, that the heart is stimulated to contract by the quality, not the quantity, of the blood admitted into its cavities), that the arteries can contract by no such stimulus, their muscular coat not coming into contact with the blood at all, the stimulus of distention is the only available supposition that remains; but, for my own part, I entertain little doubt but that the heart's contractions result solely from distention of its cavities by the blood. If we shall then be compelled to admit, on these grounds, that the arteries have a power of their own, which they occasionally exercise independently of the heart, it becomes exceedingly probable—

II. That certain dropsies are referrible solely to an exaggeration of this action, which need not, however, be of an inflammatory character. In health the forces of the heart and arteries, jointly, communicate a momentum to the blood, capable of propelling it throughout the minuter branches of the arterial tree; nor does it appear to be of much consequence whether one of these be occasionally stronger and the other weaker, provided that the sum of the two forces remains the same: for instance, suppose the heart to act with a certain power, designated by 100, and the arteries with an independent power, designated also by 100, the results will be the same, and the momentum given to the blood equal, should the force of the heart be now increased to 150, provided that the force of the arteries be decreased to 50; or, if the power of these last be increased, and the power of the heart decreased in the same ratio, the equilibrium of the circulation will be in either instance sustained, and the health of the patient from this cause not permanently impaired. I shall avail myself here of a case recorded by Andral, for the sake of

* Andral, indeed, attempts to explain such anomalies, and reminds us that the thickness of a muscle and its strength of fibre are distinct things: he accordingly considers, that in a thickening of the left ventricle, with which a slender pulse is concomitant, that the muscular fibre is feeble, and the force of the heart actually small. The objection to which is, that it leaves unexplained how a weak pulse is also frequently observed, in cases of violent palpitation of the heart, when the action of this organ is undoubtedly strong. Nor does it seem likely that an organ in constant action, merely because it is too well supplied with nourishment, should become weak; such a state is, we know, induced by a want of proper nourishment. Is it credible, then, that the same effect (want of power) should be produced by causes diametrically opposite in their *modus operandi*?

authority, though I do not consider it to be a rare example.

"A woman was admitted into La Charité with distressing palpitations, with no dropsical or other symptomatic indications of diseased heart, but with a striking variety in the strength and irregularity of her pulse at different times. Often when the heart was acting with violence the pulse was *très petit, comme vermiculaire, et irrégulier*, and their alternations were observed for some considerable time. That there was no dropsical effusion in this case, I would account for as follows. When the action of the heart was exaggerated, that of the arteries became forthwith weak; and when the former was depressed, the latter rose in strength, so that here the equilibrium of the circulation was maintained. I do not indeed mean to assert that even if the sum of the powers of the heart and arteries are greater than normal, that effusion always ensues, (for effusion would not be the immediate result even of a ligature thrown round some great vein, nor is effusion a constant consequence of all morbid mechanical obstruction), but I hold that an augmented independent action of the arteries, the existence of which I have endeavoured to support, is more likely to issue in dropsy when it exists alone, and is not counteracted by the reciprocity observable in this case. I suppose an independent arterial action, yet not of the nature of inflammation, urging the blood by an increased momentum beyond its normal limits, to be a real pathological condition in certain dropsies; and let it be recollected, that it is precisely in the minor branches of this system that the muscular coat is proved to be the strongest. Now let us see whether practical observations do not lead to the admission of such a cause for dropsies. Two patients came under our care last winter, in the Glasgow Infirmary, who had been suddenly seized with hemiplegia of the right side: in both of them the arterial action of this side was prodigiously exaggerated, (the heart beating with no more than natural vigour), and in both cases there was infiltration of the extremities of the affected side only. The cases presented other interesting phenomena, but I confine my attention at present solely to the partial infiltration of the body on the paralyzed side, where the arterial action was strongest, yet with a total absence of all the phenomena of inflammation

and natural state of the heart's contractions. Is it not highly probable that the partial dropsies in question were produced by an excess of arterial action only? For if we adopt Billard's excellent definition of inflammation—"concentration active des fluides vers un point quelconque de notre économie préétablement irrité," it would be difficult to conceive how hemiplegia should be a source of irritation to the palsied part. I am, therefore, rather inclined to object to the *ubi fluxus ibi stimulus* of Lallemand, and disposed to think with Charpentier, "*qu'on voit des irritations sans fluxions, et des fluxions sans irritation préalable*."

We come now to our third proposition.

III. That various modifications of this independent arterial power offer at once an easy, and indeed the only satisfactory explanation that can be given of the want of correspondence occasionally observed between the rhythm and force of pulsation of the heart and arteries.

Let us take a case of palpitation where the frequency of the arterial and cardiac pulses being equal, the latter is energetic in action, the former scarcely perceptible. Could this otherwise arise than from an independent action of the arteries? Let us then consider, first, what modification of this action will explain this apparent anomaly; and, secondly, what efficient cause can be supposed capable of producing such a modification?

The force with which the blood is injected from the heart into the arteries (which must be great in many cases of palpitation) should *naturally* communicate a strong ictus to the finger of the observer; but this is prevented by the arteries themselves, which, by virtue of their independent action, and in consequence of the stimulus of distention, "contract spasmodically" with more or less force, giving to the pulse that hard and yet feeble character which we so frequently observe in practice*. Let

* Sometimes the pulse is altogether wanting at the wrist, while the action of the heart may be still felt over the pericardium. Here it would appear, not so much that the heart is too weak for propelling the blood forward through the arterial tubes, as that, in addition to this, the action of the arteries is suspended, leaving the heart the sole agent in the circulation. We do not recognise a pulse, because the arteries, which, in such cases, are comparatively empty, are not stimulated, as when full, by the force of distention, to contract; or, in other words, are become but passive conduits pipes to the small quantity of blood which circulates through them.

us now take a case where there is a want of correspondence between the rhythm of arterial and cardiac action; a case, for instance, where the pulse is slow, but intermitting—the heart's beats many and irregular, as where the first is 40 in a minute, the latter 140, but neither regular. In such cases, the cause which I should be disposed to consider efficient in the production of this anormal state of action of the heart and arteries, is a contraction of the nature of spasm, of the muscular coat of these last. The arteries not only do not tend to assist the heart in propelling the blood forward, but, by narrowing their calibres, present an obstruction to the heart's action; which organ, stimulated to fresh and more powerful exertions, increases also in the number of its contractions. The arterial fibre meanwhile relaxing (for it is not in the nature of a spasm to last long,) relieves the cavities of the heart, for the moment, of the blood accumulated during their contraction; but this excess of blood, which had before distended the heart, is now thrown upon the arteries. The consequence is another spasm of their muscular coat, and a renewed irregularity of the heart's action. If such be admitted as a plausible explanation, and it seems to me even a probable one, of this perplexing phenomenon, then we explain at once every species of irregularity to which the heart's action is subject; such irregularity will be greater or less in amount, and of rarer or more frequent occurrence, according as the spasms of the arteries on which they depend are of greater or less intensity, and of rarer or more frequent occurrence.

ON ANALYTIC CHEMISTRY.

By JOHN ENNIS, Esq.

To the Editor of the London Medical Gazette.

Poland-Street, May 18, 1831.

MR. EDITOR,

THE great advantages those persons possess who have even a moderate knowledge of the principles of analytic chemistry are so conspicuous in contributing to the advancement of medicine and its collateral sciences, that few

words are requisite to sound its eulogy or demonstrate its efficacy. The principal object of this paper is to render the younger branches of the medical profession familiar with the steps necessary for its acquirement, and to point out with what facility great results may be obtained by exerting profitably those natural talents that most men possess. If, however, young students expect here to be shewn the method of arriving *per saltum* at the summit of chemical acquirement, they will be miserably deceived; for I think the most distinguished are to be considered only as travellers more advanced on the journey of scientific inquiry.

Analytic chemistry is most profitably divided into two departments—the *qualitative* and *quantitative*; the former having for its object of study the nature or quality of the body we operate upon; the latter having for its object the quantity or amount of weight of the constituent parts of the body. The former of these departments is more generally termed by the English chemists assay, and the latter analysis. I think the term assay should be restricted to researches with the cupel furnace, and the division of the continental chemists adopted in the British empire. I do not know how it is that Dr. Henry, as well as Mr. Griffin, who has lately translated Professor Rose's work on Analytic Chemistry, make use of the words *qualitative* and *quantitative*, which are decidedly not English, and give, perhaps, an erroneous idea of their import. We should, I think, in scientific inquiry, express ourselves in as plain and intelligible a manner as possible, and discard from use words of doubtful meaning.

In the prosecution of analytic research, the most eminent men differ most materially in the processes they adopt: for example, Berzelius would analyze the mineral pyroxene in a different way to Thenard, and Brande or Faraday, perhaps, would differ from both; but the whole would arrive at the same result, and find it to be a compound of silica, alumina, magnesia, lime, and peroxide of iron. The great point in analytic research is to lay down general principles, by which confusion and error may be avoided; so that, by dint of considerable exertion, a satisfactory result may ultimately be obtained. Upon the whole, I consider Brand's Manual of Chemistry and Dr. Henry's Elements of Expe-

rimental Chemistry, nothing more than grammars of the science; and Professors Thenard, Berzelius, and Rose, on the analytic department, merely syntaxes of the same. A student who has not read attentively either of those grammars, or an equivalent, will scarcely understand five words on analytic chemistry; therefore I consider myself as addressing more particularly those gentlemen who have made some progress in the science, and who are desirous of acquiring the most easy methods of prosecuting the analytic department. I must beg to premise that it is most economical to operate on small quantities of matter; consequently it is my plan seldom to take more than 100 grains of any matter that should be presented, supposing the original ten drachms, ten pounds, or ten tons, providing the substance is of an homogeneous nature. The first point to ascertain will be to which of the three kingdoms the specimen belongs, —whether to the mineral, animal, or vegetable—which, in effect, is the province of the qualitative department of the essay: for this purpose an optional portion of the substance may be taken, powdered, and put into a small glass tube a finger's length, closed at one end by the blow-pipe, and exposed to a strong heat in a spirit lamp. If the mass become charred and carbonaceous, it is a proof it belongs either to the animal or vegetable kingdom. I have often found also, in the pursuit of mineral decompositions, coloured deposits, which, by treatment with sulphuric acid, became instantly carbonized, proving they belonged to the vegetable kingdom. Having established that it belongs to either the vegetable or animal kingdom, the next point will be to ascertain to which of the two it is to be assigned. For this purpose another optional portion may be taken, put into a small retort, with a little distilled water, or, indeed, a small tube similar to the one above noticed may be used, which should be gradually heated at the lamp. If the product belongs to the animal kingdom, ammonia will be disengaged; if to the vegetable, acetic acid. The presence of ammonia may be shewn in very minute quantity, by holding, at the orifice of the retort or tube, a small solid tube dipped in hydrochloric acid, when white vapours are immediately

formed. If no such effect takes place, a paper moistened with a vegetable blue tincture (say cabbage, or turnsole) may be applied: if the colour is turned red, acetic acid is inferred; consequently a vegetable substance is the object of research. It must be confessed that those vegetables which contain much of the proximate principle termed gluten, are capable of developing ammonia; this is particularly the case with those of the farinaceous tribe, but by persevering with the distillation, the excess of acetic acid will soon demonstrate the product to be vegetable. Proximate principles of this nature are sometimes denominated *vegeto-animal*.

Having thus ascertained to which of the three kingdoms the substance belongs, the next point will be to acquire a knowledge of its constituent elements, and these will inevitably be of two kinds, mixed and unmixed: for example, water is a product composed of two unmixed elements—hydrogen and oxygen—that is to say, that when water is analyzed, its elements are pure and unmixed; not so with limestone, which when analysed is found composed of mixed elements—carbonic acid, a mixture of carbon with oxygen and protoxide of calcium, (a mixture of oxygen with calcium.) Having now found the substance to belong to the mineral kingdom, by its not developing the characters above noticed, I shall proceed to consider what, in my opinion, is the least expensive method of operating; and for that purpose I divide the mineral kingdom for analysis into three classes:—1. Bodies non-metallic and metallic; 2. Metallic oxides; 3. Metallic oxides and acids. The first class includes all the metalliferous rocks and substances composed of unmixed elements; the second class includes stones and earths, composed of mixed elements; and the third, consisting of oxides and acids, is of course formed of mixed elements constituting the different saline productions of nature, and forming occasionally great masses of mountains. When a body belongs to the first class, (a small portion) I generally take a bit the size of a pea, powder it, put it into a tube a finger's length, and treat it with nitric or hydrochloric acid at the spirit lamp: if there is disengagement of nitrous acid gas, or hydrogen, when the latter acid is employed, attended with a change

in the aspect of the matter, we may consider it belongs to the first class.

If the body totally disappears, or only in part, without the disengagement of nitrous acid gas or hydrogen, it unquestionably belongs to the second class. If the body dissolves in water, and the water becomes of a peculiar saline taste, it belongs to the third. If the body is insoluble in water, but soluble in nitric or hydrochloric acid, and that it does not saturate or rather neutralize those acids, it belongs to the third class. If it is insoluble in water, or in the different acids, and does not strike fire with steel, a sulphate of one of the following bases may be suspected: barytes, lime, or strontian. I met with an example of this kind in my researches among the rocks of Shropshire. A portion of Breidden Hill, consisting of a white, opaque, heavy, laminar mass, was powdered, treated with different acids, without the least effect. I suspected a sulphate, consequently took another portion, put it into a Florence flask, and treated with a solution of carbonate of potash in distilled water. After boiling for an hour, making up for loss by ebullition, I tested the solution with chloride of borium, when an instant precipitate took place. I was uncertain whether this was carbonate or sulphate of barytes, therefore treated the precipitate with nitric acid; not a particle was dissolved, consequently it was certain my solution of carbonate was transferred into a sulphate, at the expense of the mineral. This, by-the-by, was a separate essay; the remainder of the solution was thrown upon a filter, and sulphate of potassa passed. I now proceeded to ascertain of what base the carbonate consisted that remained upon the filter; to this effect the filter was dried, the powder collected from it, and treated with hydro-chloric acid until all effervescence ceased; distilled water was added, the liquid carried to ebullition, and set by to crystallize. No effect took place. A further portion of water was again evaporated, when beautiful tabular crystals of chloride of borium were formed, proving that the mineral was sulphate of barytes. This mineral exists also in conjunction with bisulphuret of lead among the Llangunnog rocks, Montgomeryshire. An insoluble sulphate may also be proved by fusion

at the blow-pipe with a small portion of charcoal, which, at a strong heat, combines with the oxygen of the sulphate forming carbonic acid gas, while the sulphate is converted into a sulphuric, which, treated with water, acidulated with hydrochloric acid, gives off sulphuretted hydrogen gas.

Having ascertained to which of the three classes above noticed the mineral substance belongs, the next point will be to ascertain what acid it is combined with; and if an oxide, whether it is at the first, second, third, or fourth degrees of oxidation. The carbonic acid is discovered in a product, whether natural or artificial, by treating it with nitric hydrochloric, or sulphuric acids, in a Florence flask, and applying heat, if requisite. The gas may be conveyed by a tube, bent at right angles, into wine glasses, containing solutions of lime, or barytes, when an instant precipitate of carbonates of those bases is effected. Sulphuric acid is discovered by the precipitates afforded by the nitrates or muriates of barytes, which precipitates must be unaffected by the addition of nitric acid. Muriatic, or hydrochloric acid, which last nomenclature better explains its combinations, is discovered by the addition of a solution of nitrate of silver. The oxygen of the silver combines with the hydrogen of the hydrochloric acid, forming water; while the chlorine of the hydrochloric acid combines with the metal, forming a precipitate of protochloride of silver. It must be borne in mind there are different degrees of chloridation, sulphuration, and ioduration, as well as there is of, oxidation. We have no reagent that will develop by precipitation the presence of nitric acid or the nitrates: we most generally have recourse to evaporations, and then the presence of nitric acid, or the nitrates, may be discovered in three different ways; first, by bi-sulphate of indigo, taking care to dilute it according to the quantity of nitrate operated upon, which essay may also be effected by the tube noticed above at the spirit lamp, when the colour is instantly discharged; secondly, by throwing the evaporated substance on red hot coal, when a sparkling combustion is effected, peculiar to the nitrates; and, thirdly, by adding, if the acid is in an uncombined state, a small bit of copper or iron, when a disengagement of nitrous acid gas takes

place, known by the characters given in the grammatical division of the science. Phosphoric acid, uncombined, is discovered by treating in a tube with charcoal at the spirit lamp, when a phosphorescent light is developed, or by neutralizing the acid with potassa or ammonia, and treating the solution with nitrate of silver, when a fine yellow precipitate of the phosphate of silver is effected: care must be taken not to supersaturate the acid with ammonia, because this alkali has the peculiar property of redissolving the saline products of silver.

The acids I have treated of are decidedly the most universal in nature: the phosphoric, in combination with lime, forms the earthy part of the bony structure of man and animals; the muriatic, or hydrochloric, in combination with soda, exists in the fluid of the salivary glands. Hydrochlorates and lactates of soda exist in the vitreous and aqueous humours of the eye; and hydrochlorates, phosphates, and lactates in the crystalline humour; the phosphate of lime, and soda, and chloride of sodium, exist in the tears. The mucus of the Schneiderian membrane contains hydrochlorates of potassa and soda, with phosphates and lactates of soda. The bile, independent of resin and picromel, contains soda, phosphate of soda, hydrochlorates of soda, and potassa, sulphate of soda, phosphates of lime, and magnesia, with some traces of oxide of iron. The urine contains, besides urea and uric acid, the sulphates of potassa and soda, the phosphates of soda, ammonia, and a little lime, the hydrochlorates of soda and ammonia, free lactic acid and lactate of ammonia, animal matter, some of which is soluble and some insoluble in alcohol, and finally silica, or flint stone. The blood contains carbonate of soda, extractive matter, albumen, and hydrochlorates of soda and potassa. Although nitrogen forms such an important element in the muscular fibre of man, I am not aware of the presence of any nitrate among the proximate principles of animal matter.

[To be continued.]

SUBSTITUTE FOR BLISTERING PLAISTER.

To the Editor of the London Medical Gazette.

June 5, 1861.

SIR,

I beg you will permit me, through the medium of your journal, to give my testimony in behalf of the liquid preparation Sir Charles Scudamore has recommended as an efficient and convenient substitute for the ordinary blister. As a therapeutic agent it possesses so many advantages over the huge leather plaisters hitherto in use, that I feel convinced it only requires to be generally known to supersede those inconvenient applications. Its composition, as he has with great candour stated in his work, is a solution of cantharides in concentrated acetic acid, and is prepared by Garden, of Oxford-Street. The mode of application is simple and expeditiously effected: it consists in rubbing the surface of the part requiring the blister with a small varnishing brush moistened with the fluid, for about two minutes, or until a slight blush of redness is perceived. In less than the usual time, free vesication is produced, and a copious discharge of serum follows. The accustomed applications rapidly heal the part.

The great advantage of this remedy will be perceived in the practicability of applying it with certainty to *any part*; and especially in children, who, from their restlessness, particularly when indisposed, are apt to displace, or entirely remove, the blister plaister now in use.

I will not offer any apology for thus intruding on your pages, because I feel I am only doing justice to Sir Charles in acknowledging the merit due to him for his useful suggestion. I have the more pleasure in doing so, as I have found him on all occasions (and they have been numerous) open and communicative on matters of professional information, in no respect deserving the opprobrium which was unjustly applied to him on the publication of his treatise on the cure of consumption.

I am, sir,

Your obedient servant,

JOHN GEORGE MICHELE.

31, Upper Charlotte-Street.

A CASE OF
TUMOUR IN THE BRAIN.

To the Editor of the London Medical Gazette.

Hoxton Square, May 30, 1831.

SIR,

As the accompanying case appears to possess interest both in a physiological and pathological point of view, I shall feel obliged by your publishing it in your very useful and respectable journal.—I am, sir,

Your obedient servant,

J. W. H. PARKINSON.

P.S.—The tumor, and the base of the cranium, are deposited in the Museum of the Royal College of Surgeons.

Mary Longman, thirty-two years of age, was admitted about the middle of February, 1828, into the parish workhouse of St. Leonard, Shoreditch, in consequence of being rendered helpless by a paralytic affection of the right side of the body. From her account it appeared, that about four years previous to her admission, she received a severe blow on the back part of her head, behind the right ear, which knocked her down and stunned her for several minutes. From this time she was never free from uneasy sensations about her head; and she occasionally suffered from very severe headache, of which the only relief she obtained was from blood-letting. Her spirits became depressed, and she lost all disposition to bodily exertion; occasionally too, she would be attacked with sudden giddiness, which often occasioned her to fall down if she had nothing at hand to lay hold of. These symptoms gradually increasing in severity, she at length became sensible of occasional weakness and numbness of the arm and leg of the right side, which after some time becoming permanent, she was rendered incapable of attending to her family, or of even dressing herself. At the time of her admission into the workhouse the voluntary power of the muscles of the extremities was so much impaired, as hardly to allow of her walking along the ward without support, or of raising her hand to her head; she also complained of very considerable numbness of that side, but more particularly of the right side of the face, which she

would often rub with great violence with her left hand. The mouth was drawn to the left side, and the speech was slightly interrupted by stammering.

Independently of the paralytic state of the affected side of the face, and an appearance of greater wasting than on the other side, there was a peculiar want of expression in the countenance, arising from the motionless state of the right eye, which appeared smaller and more sunk in the orbit than the one on the opposite side, the pupil being much more dilated, and very little changed by exposure to a strong light. When she attempted to look at a near object with both eyes, her vision became indistinct; but she could see distant objects much more distinctly if she was placed directly opposite to them; but if she was desired to look either to the right or the left, without turning her head, her sight became confused. To remedy this occasional defect of sight, she had got the habit of closing the right eye with her left hand. It should be observed, that the upper eye-lid of that side hung lower than the one on the opposite side.

Her mental faculties appeared very little, if at all impaired. She had now ceased to suffer much from headache, but there was a continual uneasy sensation about the head, which she could not well describe; she was also occasionally attacked with sudden giddiness.

Although, from the length of time the disease had existed, the violence of the cause from which it appeared to have originated, together with its gradual and uninterrupted progress, there could be little doubt that organic change had taken place in some part of the brain, and, consequently, little good to be expected from any plan of treatment, yet, with a view of arresting the progress of the disease for a time, local blood-letting, blistering, &c. were occasionally had recourse to; and a seton was placed immediately behind the mastoid process of the right side. For some time the disease seemed to be at a stand, for she remained in the workhouse ten weeks without any aggravation of the symptoms; but at the expiration of that time she was suddenly attacked with a strong epileptic paroxysm, being perfectly insensible, and the left side of the body violently convulsed. From this state, however, after a free blood-letting, she recovered, but with the entire loss of sight and hearing,

and the muscular power of the right side much impaired. Her mental faculties were still so little disturbed, that she requested her mother, who occasionally visited her, and who she only knew by the touch, to gain my consent to her going to the Ophthalmic Infirmary in Moorfields, with a view to the restoration of her sight. She remained in this state about a fortnight, when she was again seized with a paroxysm of epilepsy, which soon terminated her existence.

Appearances on dissection.—The head was opened fifteen hours after death, and, in the course of the dissection, the following appearances presented themselves:—Serous effusion had taken place over the whole surface of the brain, between the tunica arachnoides and pia mater, the vessels of which, containing very little blood, gave to the surface of the brain a pallid appearance. Upon paring off a thin slice of the cortical substance of the brain, a fluctuation of fluid in the ventricles became very apparent; and, on opening those cavities, from six to seven ounces of water escaped. The plexus choroides was remarkably pale; the olfactory nerves were so unusually firm as to require division with the scalpel; the optic nerves were apparently healthy, which was the case also with all the nerves arising from the left side of the brain. The motor oculi of the right side was not so conspicuous as its fellow, having lost its pearly whiteness and assumed a dusky-red appearance, which, upon close inspection with a convex lens, was found to arise from the vessels of its membranous covering being very freely injected with blood; this was afterwards found to be the case also with the trochlearis trigeminus, abductor, vagus, and gustatorius, of that side, as far as they could with ease be traced. The tentorium of the right side was observed to be much more raised than on the opposite side, arising apparently from an enlargement of that lobe of the cerebellum; but on dividing the tentorium, it was found to be occasioned by an oblong tumor about the size of a pullet's egg, embedded deeply in a corresponding pit of the cerebellum, which had every appearance of having been formed by ulceration, nearly half of the substance of the right lobe being destroyed. The tumor arose from the posterior and inner surface of the petrous portion

of the temporal bone, and proceeded in a direction backwards and inwards, towards the medulla oblongata, upon the lateral part of which, and of the tuber annulare, it considerably pressed, but had not occasioned any loss of substance.

At the point of contact, and a short distance beyond it, the same dusky-red discolouration was observed as was described to have taken place in the nerves arising from that side. On gently attempting to raise the tumor from its bed in the cerebellum, it broke off from the circumference of a carious cavity, corresponding to the meatus auditorius internus. This cavity was sufficiently large to admit the point of a moderate-sized fore-finger, and contained a white caseous matter, similar to that which formed the substance of the tumor. Except at the part where it had been broken off, the tumor was covered with a thin diaphanous membrane, which had a slight appearance of vascularity, and immediately under it were seen a few scattered nervous fibrils.

Not the least trace of either portion of the nervus auditorius of that side could be discovered. The part which corresponded to the origin of its fellow, seemed to be that which had been more immediately pressed upon by the tumor.

Independent of the carious cavity in the posterior and inner surface of the pars petrosa, there was also a more superficial cavity of the anterior and outer surface, extending from its foramen innominatum, under the cavernous sinus, to the sella tursica of the os sphenoides. The dura mater was continued over the cavity, but in such a diseased state, even for a considerable distance beyond it, as to allow of its being very easily torn.

The pituitary gland was reduced to a small pulpy mass, of a reddish colour.

P.S.—I have recently examined the head of a female, about 40 years of age, who died nearly under the same circumstances as the above, but of whose case I could not obtain a very accurate account. It appeared, however, that she had been for a considerable time suffering much from severe headache, affecting more particularly the lower part of the forehead; and that her sight had been gradually becoming much impaired. When I first saw her she was almost blind, and had, in a great measure, lost the power of raising the ap-

her eyelids. Her countenance was expressive of much anguish, which was more particularly marked from her having acquired the habit of strongly knitting her brows, arising, probably, from intense suffering. About a fortnight before her death she became perfectly amaurotic, but was still capable of walking about her room and conversing rationally with those around her. On the day before her death she was suddenly seized with apoplexy, in which state the right side of the body appeared completely paralyzed, whilst the left was violently convulsed.

I examined the head about twenty hours after death. The texture of the brain was remarkably soft, and the vessels of the pia mater appeared almost exsanguineous. The ventricles contained about four ounces of fluid. Upon raising the anterior lobes of the cerebrum, I discovered a very considerable enlargement in the situation of the pituitary gland, which proved to be the gland itself, much increased in size, and changed into a substance which our very intelligent pathologist, Dr. Craigie, would, I think, term adenoid, or flesh-like. It not only occupied the whole of the sella turcica (which appeared to me much enlarged, as if by interstitial absorption), but it passed on each side over the cavernous sinuses. The optic nerves were remarkably soft in texture, and of a dingy-pink colour; which was the case also with the other nerves entering the orbit.

TREATMENT OF HERPES.

To the Editor of the London Medical Gazette.

SIR,

I dare to dissent from the aphorism of Celsus, quoted in your Gazette, on the efficacy of local applications in herpes zoster, or shingles. I admit that the usual course of cold, or repellent ointments, is quite useless; but having for many years past made use of one which has always been exceedingly beneficial, both in allaying the extreme soreness and irritation, and also in quickly removing the eruption, I can most strongly recommend its employment. The remedy to which I allude is a solution of

nitrate of silver, in the proportions of from six to ten grains to the ounce, applied several times during the day, by means of a camel-hair brush or a feather. I have sometimes applied the caustic in a solid form lightly over the surface with equally good effect; and in a case which recently fell under my care, I treated one-half of the diseased surface with the liquid, and the other half with the solid form of the remedy, with equal benefit.

As I have always been accustomed to consider cutaneous eruptions as a mark of disorder elsewhere, I have never omitted to attend to the state of the digestive system; and in no disease is this precaution more necessary than in shingles. As a local remedy, however, the nitrate of silver has all the effect we could desire.

I am, sir,
Your obedient servant,
J. C. Cox.

33, Montague Square,
June 8, 1831.

P.S.—As I have employed the above remedy for ten or twelve years past, I cannot be supposed to have borrowed the idea from Mr. Higginbottom, who does not recommend the lunar caustic in shingles at all.

ANALYSES & NOTICES OF BOOKS.

"L'Auteur se tue à allonger ce que le lecteur se tue à abréger."—D'ALEMBERT.

The Pharmacopœia Universalis; or, complete Encyclopædia of the Materia Medica, &c. &c. By M. JOURDAN. Edited, with an Appendix, by J. RENNIE, &c.

THE articles in this Pharmacopœia are alphabetically arranged, and the present number, which contains ninety-six closely-printed pages, comprises all medicines included between "Abies" and "Æther Nitricus." The chief preparations are those of the acids, under some of which a great variety of formulæ are introduced, many of them either entirely unknown to practitioners in this country, or known to very few. With regard to Prussic acid, for example, four modes of preparing it are de-

tailed, and not fewer than thirty-three different modes of combining, modifying, and prescribing the medicine, are given; besides nearly twenty formulæ for different kinds of laurel, cherry, and bitter-almond waters: one or two of these we subjoin as specimens:—

CONTRASTIMULANT BOLUS.

Boli contrastimulantes. (BRERA.)

R Hydrocyanic Acid, thirty drops.
Crumb of Bread, } of each,
Clarified Honey, } a sufficient
Liquorice in powder, } quantity,
to make 12 boluses, one every two hours.

Boli contrastimulantes. (BATAV.)

R Hydrocyanate of Potass and Iron, four grains.
Tartaric Acid, twelve grains.
Rob of Elderberries, } of each,
Powder Liquorice, } a sufficient quantity
Make four boluses. — Dose, one every three or four hours.

SYRUP OF HYDROCYANIC ACID. (FERR.; GALL.; BORIES; MAGENDIE.)

R Simple Syrup, nine parts.
Hydrocyanic Acid, prepared after the process of VAUQUELIN, one part,
Mix intimately, and preserve in a well-stopped bottle. (GALL.)

R Simple Syrup, one pound.
Medicinal Prussic Acid, one drachm.

Mix carefully. (FERR.; HENRI; FEE; BORIES; MAGENDIE.)

These two preparations require to be renewed frequently, as they spoil very soon.

The hydrocyanic syrup is employed in being added to the ordinary pectoral mixtures.

The principal objection which we have to make is, that the work contains absolutely too much: it would be more useful if the variety were less, or, at least, if more assistance were given in making a choice amid such profusion. It would be better to introduce to us a selection of the best foreign formulæ rather than to present us with all, and leave us to discover which are good—and which are good for nothing. Nevertheless, as we have said, it will be very useful, and is an important addition to English pharmacology.

Outlines of the Ancient History of Medicine; being a View of the Progress of the Healing Art among the Egyptians, Greeks, Romans, and Arabians. By D. M. MOIR, Surgeon. pp. 278, small 8vo. Edinburgh, Blackwood.

It has often been to us matter of much surprise that, among all the various suggestions offered of late years for the improvement of medical education, no notice has been taken of the great advantage that might be derived from the study of medical history; and it is the more remarkable, as the course pursued by the soundest lawyers and divines has long been so clearly marked out, and its beneficial effects so thoroughly proved and tested. The lawyer enters with but an ill grace upon the practice of his profession who is not well acquainted with, at least, the history of the various codes which have been framed by legislators from the earliest period—the tables—the institutes—the pandects—the novels—and the great charters, which have so eminently contributed to secure the liberties and the good government of nations—a study without which his mind were destitute of those liberal and enlightened views which have distinguished the Fortescues, the Cokes, the Bacons, the Montesquieus, and the Royer-Collards of Europe; and the indispensableness of which we accordingly find largely insisted upon by the ablest directors of legal education. The theologian again, is universally considered as “scarce half made up,” who is not deeply versed in the history of the church, and acquainted with the inconsistencies and tendencies of all sorts of opinions, heretical as well as orthodox, connected with his calling. And shall it be said that the physician, who can, if it so please him, trace the annals of his profession so far back into the womb of time—shall he enter the world ignorant of his high descent, and of the great fathers of the faculty? Shall he be content merely with the current opinions and transient theories which prevail in his own times? Shall he remain destitute of the advantages to be reaped from knowing the principles and practice of the Galens, the Sydenhams, and the Hallers, the luminaries of their respective ages? No; that narrow, illiberal, and ungrateful impression of the uselessness of the sages of elder art, we

an perceive is fast dissolving before the influence of better notions.

To the practical physician the history of the healing art is far from being matter of mere curiosity. He who is conversant, as Mr. Moir has very properly observed, with medical literature, must be aware how often time and talents have been misspent, not only in the defence of deceptive theories, and erroneous modes of practice, but in the account of alleged discoveries, which have proved, in fact, to be only revivals of doctrines once supposed to be valuable, but long ago exploded as unimportant and useless. It is not only necessary, therefore, to be acquainted with the system which obtains for the time being, but to have at least some notion of the opinions which regulated the treatment of diseases in by-past ages; else, like the mill-horse, we may work in a circle, tread the same ground over and over again, and without progressing leave matters just as we found them. Without this knowledge a practitioner, however observant, and however wide the range of his personal experience, must ever remain only half-informed; for although medicine is perhaps beyond all other arts and sciences essentially practical, and hooks without the bedside of the patient can never form the real physician, yet the most valuable deductions are those which are confirmed by an extensive comparison of what is seen with what has been read; and diseases can only be, at best, empirically treated, if our attention is not constantly directed to their originating causes.

But supposing the practical physician to be persuaded of the propriety of bestowing a certain portion of his attention on this branch of knowledge, how is he compendiously, and consistently with his opportunities, to effect his purpose? The difficulty lies, or did lie, in coming at useful information on the subject of the history of his profession without wading through the most ample materials—almost unmanageable from their immensity. He is not, however, left to his own unsided resources—his wishes are anticipated, and he finds more than one labourer already in the field, anxious to supply his wants. Mr. Moir, with the resources of the modern Athens at his back, and a practised and lever pen in his hand, appears to have shaken off the little volume which

we are about to notice with little or no trouble to himself. Dr. Hamilton, on the contrary*, seems to have contended with greater difficulties—an enormously extensive plan, with evidently very limited means. The latter gentleman we shall more particularly notice at another time: Mr. Moir on the present occasion claims our undivided regards.

His "Outlines" are judiciously divided into three sections; the first treating of the history of medicine, from its earliest origin to the birth of Hippocrates, including a period, probably, of about 3500 years; nor can there be any great objection to these obscure odd centuries being passed over in about forty little pages of this compendious volume. The second section carries the reader, in about a hundred and fifty pages, through the history of the Greek school of medicine; and ninety pages more, constituting the third and last, contain the author's account of medicine among the Arabians until its extinction in that quarter, about the beginning of the thirteenth century of the Christian era.

It would be rather beside our present object to set forth how much a full and candid, and a learned history of medicine, is a desideratum in our language; the materials are abundant even to superfluity, and wanting but a masterly and accomplished hand to select and set them in order; always, however, keeping in mind that there is another want—the patronage of the public, the true Mécenas of the times, without a fair prospect of which nobody, even in this book-making, book-multiplying age, can feel an inducement to begin an undertaking of so extended a nature. Mr. Moir has wisely avoided such an attempt, but he has acted with still more wisdom in the management of what he has done: his work is just the thing to create an appetite for a similar production on a larger scale. It is quite popular enough to allure the perusal even of un-professional readers, and executed with so much ability as to throw open the field very advantageously either for himself or some other man of eminent attainments, at no distant period, to try the success of a more ample and adven-

* In his *History of Medicine, Surgery, and Anatomy, from the Creation of the World to the Commencement of the Nineteenth Century*, in two small octavos, which we shall take an early opportunity of reviewing.

thorough undertaking. That Mr. Moir, however, should proceed as he has begun, is a proposal of the propriety of which we cannot entertain the slightest doubt: in two volumes more of the same calibre and construction as the present one, he might readily bring the history of the profession from where he has left it to the commencement of the nineteenth century; and thus bestow on the profession and the public one of the most instructive and interesting of works. But this only by the way, and in token of our general commendation of the merits of our author;—it is time, perhaps, that we should briefly examine some particular points which struck us in the course of our perusal of his little volume.

Several instances of haste and want of due inquiry may be met with: we shall notice one or two. With his adoption of the rather apocryphal story of Abulpharagius—namely of the marriage of Aurelian's daughter with Sapor of Persia, and the consequent introduction of Greek medicine into the East—we will not quarrel; for even the learned and accurate Freind received it without question, and that, too, with Bayle's *Aurelien* before his eyes;—but we turn to a fact more obvious—a narrative more inexcusable. Treating of Asclepiades, whom, by-the-bye, Mr. Moir treats far below his deserts, he takes occasion to mention that that celebrated practitioner was “the personal friend of Cicero; who is eloquent in his praise, not only as a physician, but as an orator;”—and he refers to the treatise *De Oratore*, lib. i. Now Mr. Moir could never have looked into the authority he quotes here, or he would have seen that his statement was quite incorrect. Crassus is a speaker in the dialogue, and it is he who was the friend of Asclepiades. The language given to Crassus by Cicero is this: “*Neque vero Asclepiades is, quo nos medico amicoque usi sumus, tum quum eloquentia vincebat ceteros medicos in eo ipso quod ornate dicebat, medicinæ facultate utabatur non eloquentiæ;*” and we have, moreover, unquestionable testimony from Cicero that the eminent Bythinian was dead before the year 662 U. C. and that at a very advanced age, while Cicero himself was not yet sixteen. We know that the story of Cicero's intimacy with Asclepiades has gone the round of a number of compilers, but the fabrication or distortion of the above passage

has long since been traced to the notorious Father Hardouin, who started this among his other flights of fancy, but with more permanent success than many of them.

We just mention this instance of oversight in Mr. Moir, to remind him of the propriety of revising his volume carefully for a second edition; and in doing so, he will find numerous other inaccuracies, as well in the text as in the notes, but principally in the latter, which we were sometimes tempted to wish absent altogether. Almost every classical quotation in the notes, especially in the Greek type, has been most odiously metamorphosed by his printer; and the references generally are provokingly or ridiculously wrong. The line of the poet lampooning Themison, “*Quot Themison ægros,*” &c. (to be sure every one knows where to lay his finger upon it in the original), is said to be from *Juvenal Satir.* lib. ii.; and we have just cast our eye upon a note, in which, enumerating the various editions of Celsus, he mentions at length “the Rotterdam, with the notes of Isaac Casaubon and others, in 8vo. 1750;” and adds, without much of the accuracy of a Dibdin, “*Penes me, is a reprint of the last (Almeloveen's Padua. 1722), an extremely beautiful book.*”

But we gladly leave those trifles, in order to do justice to Mr. Moir on a more agreeable footing. We turn with pleasure to his chapter on Galen; which we think decidedly the most masterly thing in the book, and from which we should present our readers with a copious extract did our limits allow us. But we are also attracted by another able chapter devoted to the life and writings of Avicenna, from which we may, perhaps, with more interest and novelty to our readers, select a few passages.

“We now come to the Arabian Sheikh Reyes, or Prince of Physicians, Avicenna—a person nearly as remarkable as our own admirable Crichton*.

* By the way, Mr. Moir occasionally assumes us with his warm nationality, and the kind care he takes of his friends. Dr. Macnish, for example, is not forgotten, nor is Sir Walter Scott, who, in two passages or three, enjoys almost divine honours, “*adscriptus inter numina.*” per example: “Indeed, every thing considered, he (Hippocrates) may be set down with Homer, Bacon, Newton, Shakespeare, and Scott, as one of the master-minds of the world,” p. 45. “Far less do I believe that the spirit of our holy faith is inimical to the cultivation of intellect, for with a Bacon, a Newton, and a Scott before me, such an assumption would be preposterous,” p. 168.

for the extent and variety of his precocious attainments, and whose medical system attained a celebrity rivalled only by those of Hippocrates and Galen. Nor was his fame confined to his native country alone. His works were translated, abridged, and commented on; formed text-books for the professors in the principal schools of Europe, and were the oracles of medical knowledge for nearly six hundred years.

"Avicenna was born in the three hundred and seventieth year of the Hegira, or the nine hundred and eightieth of the Christian computation, at Bokhara, in Khorassan. Leaving this town in early boyhood, along with his parents, he grew up at Asschema, in Bocharia, to the age of fifteen; having long ere that time given many unequivocal proofs of that wayward, enthusiastic, and dauntless genius, for which he was afterwards so renowned. His powers of memory were so great, and are said to have exhibited themselves so early, that we are told, among other things, by himself, that, before he was ten, he could repeat the whole contents of the Koran. He was instructed by Abou-Abdallah of Nahel in grammar, dialectics, the astronomy of Ptolemy, and the geometry of Euclid; but such were his capacity and progress, that he soon lost respect for the qualifications of his master, pursued the honest man with logical propositions beyond his depth, and left his instructions for those of a merchant, who had attracted him by his arithmetical talents, and by his acquaintance with the Indian numerical tables.

"Removing to Bagdat, for the farther prosecution of his studies, he was taught philosophy by a disciple of Mesue the elder, Abou-Nasr-Alfarabi, a distinguished *peripatetic** of his day; and applied himself at the same time to the cultivation of medical science under a Nestorian, named Abou-Sahel-Masichi.

"With an ardent thirst after knowledge, an amazing capacity of apprehension, and an industry which scarcely allowed time for the refreshment of nature, it is not much to be wondered at that Avicenna far outstripped all his contemporaries. During the night, when his faculties were exhausted, he is

said to have stimulated them into artificial exertion by the dangerous use of wine, and warded off the approaches of sleep by a thousand contrivances. But so absorbed was frequently his whole mind in his calculations, that when slumber did overtake him, he is said, in his dreams, to have solved problems that baffled his waking hours. Enthusiastic and impetuous in his temperament, no difficulties could daunt him, no obstacles intercept his progress; and success, so far from satisfying his ardour, was only an incentive to still farther exertion. Whatever subject was selected by his fancy or intellect, he grappled with it until it was mastered; and, when the accomplishment appeared beyond the reach of his unassisted powers, he had recourse to the fervent agency of prayer for assistance from Heaven. After this, he is said to have always found or fancied his faculties invigorated, and equalled to whatever task he grappled with.

"Even so early as his sixteenth year, Avicenna had acquired distinction for his medical skill; and by the time he had reached eighteen, was so celebrated for a remarkable cure he had performed on the Caliph Nuhh, that he was invited by Mahommed, the Caliph of Korassan, to attend him in his sickness. He was looked upon, even by the old and experienced, as a complete prodigy of learning, and his judgment was deferred to in a manner sufficiently calculated to flatter his utmost vanity.

"Returning to Ray, where he received the appointment of physician to prince Magd-Oddaula, he devoted himself sedulously to his studies, and produced an extensive work on the state of the arts and sciences, or rather a kind of cyclopædia of human knowledge, under the title of 'The Utility of Utilities.' Be it remembered that the author was but yet on the verge of manhood—a youth in his twenty-first year.

"Not long after this he was raised to the dignity of vizier, where, it is said that his knowledge of the laws, observant habits, strict impartiality, and indefatigable attention to affairs of state, acquired him great favour, and an almost unbounded influence over the public mind. But the life of Avicenna seemed destined to be a restless one; and, on some plea or other, it is generally reported that of having been necessary to a seditious plot, he was

* This word is quite new to us: we presume the rather means a *peripatetic*.

stripped of his honours, and ignominiously cast into prison, where he remained for several years.

"He was one, however, like Sir Walter Raleigh, whose prison-hours were to enrich the world; for it was principally while in this gloomy seclusion that he composed his works on theology, mathematics, astronomy, metaphysics, logic, morals, philology, natural history, natural philosophy, and medicine. It was to the last, however, that he applied the principal bent of his mind; and he devoted himself to a cultivation of its different branches with unwearied assiduity. It would appear that his other treatises, even on subjects so abstruse as some of those mentioned, were undertaken merely as occasional relaxations from that study, which he regarded as the principal occupation of his life.

"Upon being at length restored to liberty and the active duties of a physician, the death of his patron and protector, Oddaula, again appeared to endanger his freedom, and, withdrawing from public notice, he remained for a considerable time concealed in the house of an apothecary, employing his solitude in the consideration of literary topics. His retreat being, however, accidentally discovered, he was carried a prisoner to the castle of Berdawa, where, after four months' confinement, he contrived to effect his escape in the dress of a monk, and fled to Ispahan. He was there received with open arms by the court of the Caliph Ola-Odaula. Every year increased the splendour of his reputation. He had no rival in his profession; and his celebrity, as a man of science, was nearly equal to his fame as a physician. But he was not destined to attain old age, or sun himself in repose under his laurels. However great may have been the original vigour of his constitution, the intensity of his studies, together with the hardships and irregularities of his life (for he is said to have been too much the dupe of profligacy and dissipation), tended to cut short his days. His health became gradually undermined, an inflammatory attack in the intestines being followed by epilepsy; and, while on a journey to Hamaan, in company with the caliph, his fate was accelerated by an overdose of opium, accidentally administered by his servant. He died in 1036, almost immediately

after reaching that city, in the fifty-eighth year of his age."

We had intended to have gone on, and given Mr. Moir's excellent analytical account of the Canon of Avicenna; but our space will positively not admit of this, and we must hastily take our leave, once more expressing our general sentiments of satisfaction with the excellent style and spirit in which the volume has been composed.

ROYAL INSTITUTION,

Friday, June 3, 1831.

GEORGE MOORE, ESQ. F.S.A. VICE-PRESIDENT, IN THE CHAIR.

Mr. Ritchie on Electricity as the probable cause of all the phenomena of Artificial and Terrestrial Magnetism.

WE have on various former occasions reported many of the experiments and researches which have been made, both in this country and abroad, on the above very important and interesting subject; and Mr. Professor Ritchie premised the chief feature of his lecture, (which related to the *pointing, dip, and oscillation* of the needle) by running over, in a cursory manner, the several phenomena which tend to prove that magnetism is but an effect or modification of electricity; such as rendering a bar of soft iron a magnet by passing it through a coil of wire, enveloping it in a current from a voltaic pile, &c. &c. &c.

Mr. R. likewise exhibited a very ingenious instrument, which he has lately constructed, consisting of a glass tube, with wire twisted round it externally, and containing internally a pair of plates; so that when filled with weak acid, and thus put in action, it makes itself a magnet.

Having established, and illustrated by experiments, the identity of the phenomena produced and producible by electricity and magnetism, Mr. R. proceeded to investigate the attraction and repulsion of metal rods through which currents of electricity were passing in similar and in dissimilar courses; whence arise those rotatory motions, beautifully described by Faraday and Ampere.

The reverend professor then conclu

d'his lecture by propounding the new theory—that the pointing of the magnetic needle north and south, is owing to the current of electricity traversing the globe near the equator, (as in all experiments the needles cross the currents) which current is supposed to arise from the sun, at different times, heating different parts of the earth, especially the metalliferous veins unequally; for modern research has proved that electricity is excited, not only by the contact of two different metals, but also by the same metal at different temperatures. The magnetic equator varies, as experiments have already shewn, considerably from the geographical, and appears to be deflected always towards large masses of land: its entire course, however, has not yet been accurately determined. That the variations probably depend upon this cause, Mr. R. very beautifully and satisfactorily illustrated by placing above a globe, round which a wire was coiled so as to form a magnetic equator with spiral continuations to the poles, a magnetic needle, which, under the various circumstances, and in the various latitudes, exhibited the same phenomena that the needle in the mariner's compass is known to do, and to ascertain which, so much time and ingenuity have been employed.

On the table in the Library we noticed Mitscherlich's argand spirit lamp, and also various specimens, illustrating the different modes of growth in vegetables.

PHYSIOLOGICAL CONJECTURES.

By PHILALETHES.

To the Editor of the London Medical Gazette.

SIR,

I.

It seems to be a prevalent opinion amongst physiologists, from Galvani himself to MM. Prevost and Dumas inclusive, that the galvanic agency is much concerned in the animal economy. The animal frame would appear to be possessed of arrangements for evolving this agency; and the agency itself appears to be expended in giving origin to the various motions, secretions, &c.

I think it not improbable that the arrangement for the evolution of the ani-

mal galvanism consists of the *arterial* blood as its essential part. This fluid, placed in connexion with other material, or materials, of the animal body, may be the prime mover of the galvanic power.

If this conjecture be true, we discern at once the reason of the necessity for respiration, and the necessarily fatal influence of its privation, or asphyxia.

The galvanic pile itself requires an atmosphere containing oxygen, unless an acid be employed. In an atmosphere of hydrogen or nitrogen, or in vacuo, it ceases to act, just as the animal body is asphyxiated in similar circumstances. In order to continue its action it is necessary to renew its oxygen, as, in order to maintain animal life, it is necessary to secure the arterialization of the blood.

If the pile contain an acid fluid, it is necessary that this should be renewed. The arterial blood is continually renewed in the animal body, by its circulation.

The galvanic pile is more energetic in proportion as it abounds in oxygen. The animal frame is so exactly as it abounds in the character of arterialization of its blood. In the reptile tribes, in which a mixed arterial and venous blood obtains, the degree of energy is proportionately low.

The animal dies when the *arterial* character of the blood is entirely lost, as the galvanic pile ceases to act as soon as it is deprived of oxygen.

These conjectures may be submitted to the test of experiment. What are the comparative effects of piles formed of arterial and venous blood, and of the former and latter distinctly, with the various animal substances, textures, and membranes?

I propose to connect the circulating arterial blood, the venous blood, the nervous, the muscular, and the membranous textures, variously, in circles, and ascertain if they be galvanic.

In the rabbit, killed in the ordinary way, it may be matter of experiment whether this circle proves galvanic, or ceases to be so, according as artificial respiration is kept up or not—that is, according as, and in proportion as, the blood is, or is not, arterial.

II.

Irrespective of these views, it is matter of interesting inquiry—

1. What is the precise *quantity* of respiration in the different species of

animals, and in the different ages and circumstances of each species—that is, what quantity of oxygen disappears by the respiration in them respectively, in a given time?

2. Whether this be proportionate to their activity directly, or to their tenacity of life inversely?

3. Whether it be inversely proportionate to the degree of irritability of the muscular fibre?

4. Whether it be inversely proportionate to the duration of the respiratory indications on dividing the spinal marrow at the occiput?

5. Whether it be inversely proportionate to the duration of the heart's action, or of the muscular irritability, when the heart or muscular fibres are separated from their connexion with the brain or spinal marrow?

6. Whether it be inversely proportionate to the degree of temperature required to induce permanent contraction of the muscular fibres?

The quantity of respiration accurately ascertained, relatively to each age and species, and numerically arranged, would present an interesting series and classification of facts.

III.

The whole of the hæmatosis, of which digestion seems to form the first stage and respiration the last, seems to be connected with the evolution of temperature.

An impaired digestion almost induces a diminution of temperature. This fact is evinced in the human body, in the case of abdominal tubercles, which frequently obliterate assimilation, and in common dyspepsia. In the former case there is the most remarkable permanent diminution of temperature observed in the human frame.

Animals subjected to abstinence lose their temperature, and often become torpid. They are roused by warmth merely, before food is given.

The connexion of the quantity of respiration with the animal temperature cannot admit of doubt. But this connexion should be determined accurately and numerically. In doing this, reference must constantly be made to the condition of the digestive and assimilative processes, as is obvious from the facts just stated.

PHILALETHES.

M—S—, June 5, 1831.

MEDICAL GAZETTE.

Saturday, June 18, 1831.

"Licet omnibus, licet etiam mihi, dignitatem Artis Medicæ tueri; potestas modo veniendi in publicum est, disceendi periculum non recuso."—CICERO.

HOW FAR APPRENTICES MAY PRACTISE—CURIOUS SPECIMEN OF SOPHISTRY.

In the case of the Apothecaries' Company v. Greenwood, recently argued in the King's Bench, it was laid down by Lord Tenterden, that medical men cannot have different shops with apprentices practising in each: the practice of apprentices must be exclusively confined to their master's residence.

THE preceding is a little note which we had ready for insertion in our last number, but were obliged to leave out for want of room. We give it now, as containing information worth being known, perhaps, to some of our readers, and should give it simply, without comment or remark, as a thing of no great consequence in itself, and withal so clear as to render elucidation wholly unnecessary, were it not that our worthy contemporary has made it a matter of such mighty moment as to write a leader upon it, filled with the usual quantity of quibbling and trash—trash utterly beneath noticing, but for the fresh opportunity it affords us by its exposure of laying open the character of the publication in which it appears. Who would have thought that the simple language of the Lord Chief Justice—his few plain words, of which the substance is given above—were capable of perversion? Yet so it is. With an ingenuity of misrepresentation worthy of some quirking pettifogger of the Old Bailey, has the Editor of the *Lancet* found means of distorting even so intuitively intelligible an expression as the preceding one of Lord Tenterden.

Our sophist first fastens upon the word "residence." The house in which a medical man lives or resides is perverted

into the place he occupies, using that word in its legal sense: and a tax-gatherer's notice is adduced in evidence of the propriety of such an acceptance.

"Thus his Lordship imagined he should appoint a safeguard for the public, by binding down each apprentice to perform his professional duties only in the house "occupied" by his master. In laying down the decision of the court upon this point—a decision which is entirely opposed to the terms of the Act of Parliament, his Lordship must have altogether forgotten the law relating to the tax upon inhabited houses, &c."

Will it be believed that this is the sort of stuff, by way of legal adroitness, put forth by a person who modestly boasts of "having devoted more time to the consideration of things of this sort than all the Judges who ever sat on the English Bench?" If the man means that he has spent more time than the Judges of the land in studying to pervert in this way the meaning of common words, we can very well believe him: we have certainly here a very creditable sample of his powers.

But it does not end here; there is another word in the decision—the word "practise,"—which must, of course, not be suffered to pass undistorted; it must, at least, be tampered with: and how is this managed? Every one who has no sinister purpose to serve, must see what Lord Tenterden wished to be understood to say; and nobody will venture to assert that his decision, in the remotest degree, countenances the apprentice's practising, under any circumstances, as an independent apothecary. The apprentice can practise only *as an apprentice*; and it is only the most downright stupidity, or the most mischievous perversion, that can pretend to construe Lord Tenterden's dictum in any other manner.

It is curious to take a view of the grounds on which this would-be expounder of the law ventures to pronounce Lord Tenterden wrong:—"First,

because the house in which Mr. Greenwood (the apprentice) practised, may have been the 'residence' of his master;"—but it was decidedly not looked upon as such by his lordship, neither was it really so in point of fact. Our contemporary's own account of the case is this:—

"It was proved, on the trial, that defendant had lived during two years as an apprentice with a gentleman named Drake. On leaving Mr. Drake in 1828, from some cause which did not appear, he became articled to his brother, a surgeon and apothecary, residing eight miles from the above town. Immediately after being articled to his brother he returned to Halifax, opened a shop, and proceeded to act as an apothecary under his indenture of apprenticeship."

—So he opened a shop—a shop of his own—eight miles from where his master resided; and, forsooth, this shop "*may have been the residence of his master!*" But to continue:—"Secondly, because the prodigal neglect of a master towards his apprentices and his patients cannot alter the words of the statute." What this means we shall not pretend to be such augurs as to expound;—we are no Œdipuses, and of course we leave it as we find it. "And, thirdly, because it is decidedly opposed to the provisions of the law, for any apprentice to practise *as an apothecary*, whether in or away from the residence of his master." Not so fast, good master sophist; you beg the question when you state it so, and you lose your labour, and prove nothing. Leave out, as Lord Tenterden did—and as you yourself did till you found it convenient to introduce them—the words "*as an apothecary*," and what becomes of your notable third reason? Why it turns out to be an assertion too glaringly ridiculous to be admitted even by the most egregious

* The Lancet report is this:—"His Lordship considered, that, upon the whole, the safe rule was to confine the practice of the apprentices to their masters' residence, and being of opinion, that the defendant had incurred the penalty, the rule for a nonsuit was ordered to be discharged."

simpleton. The act certainly states, that "it shall not be legal for any person to practise as an *apothecary* in England and Wales," &c.; but it is not so absurd as to say that nobody must practise as an *apothecary's apprentice*; nor is the practice of apprentices not recognized by that act, which requires, as a *sine qua non* for full practice, the complete serving of an apprenticeship. Gross folly, or knavery, to broach such nonsense.

But we had almost forgotten that now, if ever, is the time for the President (the *Chancellor*, we believe, is the more correct title) of the Collegium Wakleyanum to shew the stuff he is made of—to display his proficiency in the accomplishment of Milton's fiend—

—"to make the worse appear
The better reason, to perplex and dash
Maturest counsels;"

and to ascertain exactly how far he may calculate on the gullibility of his followers. We lately had occasion to admire his oblique and disinterested hints to correspondents, relative to certain law expenses; to these we may again recur. We shall now, however, merely give him this parting advice—if he be wise, to *let Lord Tenterden alone*. When he tries to fix his fangs upon such quarry, it behoves him to weigh well the viper's bootless office in a similar sort of adventure.

CHOLERA — REPORT OF THE PHYSICIANS.

THIS subject divides attention with the reform bill. No medical man can enter a house without being questioned about it; and the papers, both at home and abroad, teem with the most alarming accounts. In short, there is a complete panic; and as mankind are ever prone to magnify horrors, so we trust that the extent to which the disease has prevailed, as well as its rate of mortality, will be found to have been exaggerated. At Moscow, the accounts from which

are more specific than those from most other places, not more than one in twenty-nine of the inhabitants suffered; while at Warsaw, where it was introduced two months ago, it seems to have made but little progress. We are far from denying that the evil is of a nature to demand the most serious attention; and this, we are glad to find, it has met with. All the documents received from abroad by our Government, were transmitted last week to the College of Physicians, by whom a Committee was appointed, who sat during several successive days, including Sunday, and bestowed upon the investigation all the care and anxiety which it merited. The points on which their opinion was more particularly required related to the mode in which the disease is propagated, and the consequent necessity, or otherwise, of quarantine. The conclusion at which they have arrived is, that the disease is infectious in so far as regards its passing from one person to another; and they do not look upon it as proved that it may not also be transmitted by goods. Under these circumstances, they have judged it most prudent to advocate the propriety of strict quarantine being enforced, both on persons and merchandize. It is remarkable that the Committee have come to this decision, in opposition both to the opinions of those who have seen cholera in India, and the great majority of those who have witnessed it in the north-east of Europe. They have taken the facts of the narrators, but drawn from them conclusions, for the most part, of an opposite nature. It has been decided that medical commissions be forthwith despatched to Riga and Dantzic, consisting in part of gentlemen to whom the cholera of India is familiar. The public may rest assured that all the prudential measures which the necessities of the case require, are in operation; and we would caution them against being unnecessarily alarmed by the exaggerated ac-

counts which are always given under such circumstances as the present, as well as against being led to place any reliance whatever on the numerous methods of treatment recommended through the medium of the press, by well-meaning but weak and credulous persons. Among these we may particularly allude to the plan of covering the patient with an universal cataplasm of hemp-seed, which a contemporary has lauded; though the rate of mortality where this ridiculous method was adopted, actually amounted to about one in two. The experience of the Indian practitioners has long taught them to lay aside all attempts at the discovery of specifics, and to treat the disease on general principles, according to the symptoms in each particular case; for the malady itself, and the effects of remedies, differ very much in different individuals.

Sir Anthony Carlisle, we perceive, has resumed his periodical lucubrations. It is lamentable to see a member of the profession thus entering upon the discussion of a subject with which he is evidently unacquainted, and addressing himself ostensibly to the Lord Chancellor, but in reality to the public, who, on such a topic, could not appreciate his reasoning, even if it were good.

NEW BYE-LAWS OF THE COLLEGE OF SURGEONS.

SINCE we first announced (Gazette, May 28th) that new bye-laws had been framed by the Council of the College of Surgeons, and approved by the Judges, various doubts, and some positive denials of our accuracy, have been hazarded in the public papers. One more confident than the others has indulged in sundry speculations as to what Lord Brougham would do if any such paper were submitted to him. The document which we subjoin will render any further exertion of ingenuity, on the part of the writers in question, super-

fluous. We happen to know, however, that an attempt was made to dissuade the Chancellor from sanctioning the new bye-laws—an impertinence which he treated with silent contempt. They run as follows:—

“ No business whatever shall be transacted nor any matter be discussed or debated at any meeting or assemblage convened by or under the authority of the President or Council, or before or after the business thereof shall have commenced, other than the particular business or matter in respect of which such meeting or assemblage shall have been convened; nor shall any debate or discussion whatsoever be had or allowed at any meeting convened by the President or Council for the delivery of Lectures or Orations either before or after the same shall have commenced or terminated. And no meeting or assemblage of Members of the College shall be held in the Hall or Council House of the College, or in any of its appurtenances, unless convened by or under the authority of the President or Council: and no Member of the College shall advertise or convene or attend, or combine with others to advertise or convene or attend any meeting or assemblage in the Hall or Council House of the College, or in any of its appurtenances, not authorized by the President or Council. And any Member of the College who may in any manner offend herein shall be liable to be restrained and excluded by the Council from attending any Orations and Lectures at the Theatre, and from any use of or admission to the Library and Museum, and to be suspended from any or all other Privileges which he may have as a Member of the College, for any such period as the Council may adjudge, or to removal by the Council from being a Member of the College. And every Member of the College who shall thereupon be removed as aforesaid shall forfeit all his rights and privileges as a Member thereof.

“ All meetings convened by or under the authority of the President or Council of the College, as well for general business as for the delivery of Orations or Lectures, or for the distribution of Prizes, shall be under the control and direction of the President or other Member of the Council presiding at such Meeting. And any Member of the College who shall interrupt, impede,

or interfere, with the proceedings at any such Meeting, or shall propose any matter for discussion or debate without the leave of the President, or other person so presiding, shall, upon being required by the President or other person so presiding, immediately withdraw from such Meeting; and shall be moreover liable to be restrained and excluded by the Council from attending any Orations and Lectures at the Theatre, and from any use of or admission to the Library and Museum, and to be suspended from any or all other privileges which he may have as a Member of the College, for any such period as the Council may adjudge. And any Member of the College who shall so offend a second time, or during any suspension by the Council shall attempt to exercise any of the privileges from which he shall be suspended, shall be liable to removal by the Council, from being a Member of the College. And every Member of the College who shall thereupon be removed as aforesaid, shall forfeit all his rights and privileges, as a Member thereof.

"MADE AND ORDAINED
BYE-LAWS

Of the Royal College of Surgeons in London by and at a Meeting of the Council of the said Royal College, holden, at the College, on the 27th day of April, 1831.

"We have examined and do approve of and allow these Bye-Laws:—

BROUGHAM, C.
TENTERDEN.
N. C. TINDAL.

21st day of May, 1831."

ST. THOMAS'S HOSPITAL.
CLINICAL LECTURE,

DELIVERED BY DR. ELLIOTSON,
March 31, 1831.

CONCLUDING LECTURE.

Perversion of Medical Terms.

THE books not having arrived, gentlemen, I may just observe, to fill up the time, that in the last lecture I spoke of inhalation, and one of my patients who is employing it amused me exceedingly by his corruption of the term. I asked him some question, in reply to which he called it, not inhaling, but "*inward healing*." Some of my private patients, to whom I told this, were exceedingly amused, and considered the beneficial effects they had experienced fully justified

him in his corruption of terms. He had no notion of the word inhaling, but thinking he had inward ulcers, and that what he did was to heal them, he fancied he heard me call the means used to cure him, *inward healing*. I have heard various corruptions of medical terms in my life. I recollect that one patient who had erysipelas told me, that he thought he had the "*hairy spleen*." Another, I remember, who had been labouring under typhus fever, said he had been attacked by a *tightish fever*. It is only a month since a patient came to me with rheumatic pains. I asked him what was the matter, and he told me he had got *romantic pains*, and I made him very happy by assuring him we had some romantic remedies, and should soon cure him. I recollect that a woman labouring under lumbago came to me with a very shamed face, and when I inquired what was the matter with her, she put one hand behind her, and looking down and blushing, said, she had got the "*bumsey*." A gentleman, formerly a surgeon in the city, tells a story of having once gained the good opinion of an old woman who came to him, by telling her, that he was satisfied her complaint was "*an association of ideas in her stomach*." She replied, "You are quite right,—quite right, sir; you are the only gentleman that could ever tell me what my complaint was; I always knew that it was in my stomach." There is a great deal in naming a complaint. One costive old fellow gave me to understand that he was "*caustic*;" and an old nurse brought me a baby so malformed in its genitals, that she could not tell whether it was a boy or a girl, and thought it must be a "*mumphyria*."

As the books have now come, gentlemen, I will speak of the remaining cases that have been presented this month.

A woman has died, of whose case I can give you scarcely any account. She was in a state of stupor when she came in, attended by great tenderness of the abdomen. Leeches were applied to it; but the stupor continued, the pulse became weak, and she gradually sunk. Most probably there was effusion in the head, with peritonitis, but I cannot tell you more about her, because no satisfactory account could be obtained from her friends—none from herself, and her friends would not allow her body to be inspected.

Chronic Dysentery—Efficacy of Sulphate of Copper.

There was likewise presented a case of *chronic dysentery*, which exemplified the good effects of sulphate of copper united with opium. This man, like most of the patients that we take in here with chronic dysentery, I might say, perhaps, all, had been in a hot climate. He had several stools a day, and when he came in they were bloody. I began the sulphate of copper in doses of half a

grain, three times a day, with half a grain of opium. These were gradually increased; but while I was employing them, there was no reason whatever for not having recourse to any antiphlogistic measures that might appear necessary. He complained of tenderness in the situation of the transverse arch of the colon; and, on that account, leeches were applied there from time to time. I think it impossible to say, as I have already mentioned, in chronic dysentery and chronic diarrhoea, whether there is ulceration or not; if, however, there be ulceration, that is no reason why a patient should not get well. Intestines are continually opened where cicatrices are seen, and sometimes very considerable ones too. You will find this mentioned by Dr. Latham, in his work on the Disease of the Penitentiary; you will find it mentioned by Andral. You will find that Mr. Howship mentions a case of cicatrization to a very great extent. I have frequently seen intestines in a state of ulceration at some parts, and of cicatrization at others, shewing that ulcers had healed; therefore, whether there is chronic inflammation merely in these cases, or whether there is ulceration in addition, there is no reason whatever for not persevering with our measures; the one case may be cured like the other. Chronic inflammation in the intestines will destroy life equally with ulceration. I have seen people sink under violent purgings, which have continued for some months, where there was not the slightest ulceration; and, again, I have seen persons who have lived for many months with their intestines ulcerated to a great extent. I never saw a greater mass of ulceration than in the intestines I showed you last Tuesday, and that man had unquestionably been in that state a great many months. The condition of the feces is exceedingly various; sometimes they are bloody, sometimes they are not bloody at all. The man, to whose case I have just alluded, never had a speck of blood in his feces; whereas, on the other hand, I have sometimes seen in mere inflammation a great quantity of blood. Then, with respect to pus, there never was the appearance of pus in that man's secretion: on the other hand, in diarrhoea, you will frequently observe pus, although there is no ulceration. In that man's large intestines, the whole mass of feces was of the healthiest description.

The present case was useful as shewing a fact which is seen continually, respecting doses of sulphate of copper; namely, that the difference of half a grain may make all the difference in the benefit. This man took at last two grains, three times a day, with a certain benefit; but, not mending so fast as could be wished, the dose was increased to half a grain more; the result of which was, that he immediately began to improve rapidly. I believe I have mentioned before

that it should be given in a solid form, and not on an empty stomach; and that it is best combined with opium, at least in the first instance. I have frequently given it with two or three grains of opium, and at last have gradually diminished the opium till I left this off altogether. As, however, besides being an astringent, it is acrid, it is best to obviate the effect of the acrimony by opium. Of course, where it is given with opium, you cannot tell what are the effects of the sulphate of copper and what of the opium, because the opium itself has a strong tendency to check the diarrhoea. It is only from the comparison of a number of cases treated with opium and sulphate of copper, with cases where opium only was employed, and from cases where the opium has been greatly diminished and omitted, while the sulphate of copper was increased and continued, that the fact can be ascertained; and by comparing cases where opium was first given alone, and then the sulphate of copper added. It is only by these observations that its use can be proved. Of its good effects alone, I have no doubt; but knowing the advantage of opium, I consider it my duty to give a patient all the benefit that medicine will allow, and therefore I unite them together, provided the opium do not disagree.

There is a case in the same ward at this moment, of chronic dysentery, which was very bad, but is now doing exceedingly well, and which also illustrates the benefit arising from the addition of half a grain only of the sulphate of copper. It has occurred in a young man who, I believe, has been at St. Helena. His stools continued bloody; when he came in, he had a great many in the day, and had been ill a year and a half; he had ten stools a day, sometimes twelve, sometimes fifteen. There was tenderness of the abdomen, and, therefore, to give astringents without attention to the inflammatory state, would have been wrong. Astringents for the diarrhoea were indicated, but still there was so much tenderness that I thought it right to apply leeches to the abdomen, and he had twenty applied from the 2d till the 15th, and then I began to give him half a grain of opium, and half a grain of sulphate of copper, which was gradually increased till I came to two grains each; under which he continued improving, but not so rapidly as I desired. On the addition, however, of half a grain, he instantly began to mend very considerably. The last report is, that he had only one motion in the course of the twenty-four hours, and that of an healthy appearance. His stools before were liquid, and more or less bloody, but now they are generally healthy, and rarely shew any blood.

I .
Chorea—Rapid Cure.

Another case to which I will direct your

attention was one of St. Vitus's dance, which you must have all seen. It certainly was as bad a case of chorea as ever I witnessed. I have seen many as bad, but I never saw one worse. It occurred in a boy, and his appearance was that of one possessed by a demon. I am sure if he had been seen in ancient times, he would have been brought forward as an instance of possession by a devil, or more properly, as Farmer proves, by a demon; for he was making all sorts of faces and contortions. His head was continually going from the right to the left, and the left to the right side; he grimaced and gnashed his teeth, and was always opening his mouth as wide as if he were trying to snap at and chew the air; his hands and limbs were thrown in every direction; he rolled off the bed as soon as he was put on. When his food and medicines were given him, it required two persons to hold him while they were got down by a third. He had been ill three weeks, and was eleven years of age.

Now there was no pain in the head—no symptoms of inflammation or congestion about the head, neither about the abdomen—no tenderness in any part. His tongue was clean, there was no costiveness, and he had a good appetite. There was nothing—no one symptom—the matter with him, but this visibly horrid state, in which he had been three weeks, and during the whole of which period he had been briskly purged. Purgatives were the only medicine he had been ordered by those who attended him, but so far from improving under them, he was gradually getting worse.

I ordered him two drachms of the subcarbonate of iron every four hours, and this was got down in the way I have mentioned. I began on the Thursday, and on the Sunday he was rather better; there was a little doubt about it, but he appeared, as people say, of the two rather better. On the 11th he was much better; there was no doubt whatever that now he was considerably better. In four days more, the 15th, the report is, he was very much better; his amendment surprised every body. I presented him last Tuesday for to-day, perfectly well. I believe I may say he had been well for a week, but I kept him for that time afterwards, and gave him medicine to take out for a week, lest the complaint should more or less return; because in these diseases, as in syphilis, ague, &c. it is wrong to stop the medicine merely because the disease stops. The disease may return; and it is certainly right, when you are giving medicine that, with due care, can do no harm, to give it for a greater or less length of time after symptoms have disappeared.

When the boy came in, I told you I had no doubt whatever that I should be able to cure him. The fact is, as I have said on former occasions, I have never yet failed in

curing a case of this disease occurring generally, and in a child, by this medicine; but when it has occurred in adults I sometimes have not cured it, because there has been in all probability organic affection. When the disease is partial, then, I believe too, it frequently depends upon an organic affection; but in children it appears to be usually nothing more than a morbid irritability of certain parts of the nervous system; and it easily, in general, yields to this treatment. I intend to go on using this remedy, for this reason, that I never yet failed; but it is to be remembered, that every case will not mend so rapidly as this. The boy was admitted on the 24th February, and on the 24th March he was well. You find cases from time to time where the medicine operates more slowly than in this instance; and having now no doubt of the power of this medicine, I shall have no hesitation, if a patient do not mend quickly enough, to have recourse to other remedies in addition. It is not a specific, probably; but I believe it possesses more power than any other; and as I have now no occasion to make observations to prove its power, being quite satisfied upon that point, if I meet with a case that will not mend as I could wish, I would give sulphate of copper, or zinc, and employ the cold bath, or electricity, to quicken the cure.

It has been said that the medicine succeeds much better if a patient be purged well first; whether that is the case or not I cannot say, but it is a fact that this individual had been purged before he came in, and he mended in the rapid way I have stated. I have now had about forty cases of this disease, all of which have been treated with this medicine; some of the patients got well in the rapid way which this patient did, and some have required nearly three months' treatment, that I know—but by turning neither to the right hand nor to the left, by not fiddle-faddling but going steadily on, I have invariably succeeded, I mean in young subjects, and general chorea. You have seen, this winter, every case get well which has been treated in this way; at the same time it is to be remembered there are other excellent modes of treating it. In the course of this season I had a case in private, which occurred in a little girl named Zerbini. She was a poor girl, but some medical gentleman sent her to me, thinking I might like to cure her. She was ten years of age, and had had the disease five weeks. This is the most common age at which the disease makes its attacks; certainly just about, and a few years earlier than, puberty. She was ten, and had had the disease five weeks; the boy was eleven, and had had the disease three weeks. Now she had had it also three years ago, and then the affection lasted ten weeks; and it was about the same time of the year. You will find continually that, when the dis-

ease returns, it does so about the spring particularly. I have frequently noticed this. What it arose from in the boy, I do not know; there was no sensible state that I could connect it with, no inflammation, no fulness, no local disturbance; but in the girl it had arisen from fright each time. It appeared that the mother was dead, that her sister behaved very cruelly to her, and had frightened her each time previously to the appearance of the affection. Many nervous affections arise from fright. She was so bad that she could not speak; it took some time to get the boy to speak, but she could not speak at all, and her appearance was quite idiotic. The boy was plethoric; she was pale and thin; she had ascarides too, that is to be remembered, and large numbers came away during her sleep; but notwithstanding that I gave her the same remedy, because I believe that a great many cases are supposed to arise from worms when they do not. Worms are present at the same time, but frequently they are the result of the morbid state of the system, are derived from it, and are not the cause of the disease, be it epilepsy, chorea, or whatever else, that they accompany. Of course, very frequently they produce symptoms, but very frequently they do not; they are merely an accidental occurrence, or the result of the same enfeebled state of the system. I have seen patients with epilepsy who discharged worms, and after I had got rid of all the worms the epilepsy was no better. She, like the boy, had been well purged, but without any relief; she had also, however, taken the subcarbonate of iron, but in doses of only ten grains, three times a day. There is no rule to regulate the doses of iron. You will find it stated in some books that you may give thirty grains at a time; but, in fact, you may give almost any quantity that the stomach and bowels will bear. She was taking these ten grains without any good, and I immediately ordered the quantity that was taken by the boy, two drachms, but to be taken only three times a day, as she was at home. She came to me on the 15th February, and on the 28th the report in my private case-book is, "nearly well." She began to mend in a few days, just as this boy did. It did not confine her bowels at all; she had two or three stools every day, I suppose on account of the treacle that the iron was mixed with. On the 24th March the report is, "perfectly well." She had lost her idiotic appearance altogether, and was perfectly still. Now you will hear, perhaps, of cases of this medicine having failed, and I dare say it will, like every other medicine; but I think if you persist, give it perseveringly, and not give it up first for another medicine in a few days, and then for another, but go on perseveringly, you will find the cases of failure rarer under it than any other medicine.

There was no other case presented; but it may be right—as I do not purpose continuing

the clinical lectures beyond the present month, the season being so nearly over—to take a view of the cases at present in the hospital, of which I merely spoke at their admission, at least of one or two that are particularly interesting.

Morbid Sensibility of the Retina.

Among the women there is an interesting case, of a kind which I never saw before; it is a case called, *morbid sensibility of the retina*. The woman says she cannot bear any strong light. There is nothing particular to be seen in the eyes. The iris contracts perfectly; it is not dilated, neither is it too small; but she says she cannot bear any thing dazzling, so that she is almost in blindness. Red and black, she says, blind her; and that she has not seen her husband for three months, because he wears a black coat. On my last visit I observed her looking fully at me,—that she surveyed me constantly while I was talking. I engaged her in conversation, made her forget all that she had said, and she looked at me as any other person would do. I had a black coat on, and I remarked this to her. She said, "True, you have a black coat on, but it is rather rusty;" however, as it has been worn but two months, I believe it is in pretty fair condition. I asked her why her husband was not gallant enough to change his coat? She said he was too poor to get another coat. Now, if he were obliged to wear it because he was too poor to get another, I presume he had worn it for several months, and therefore his coat must be, at least, as rusty as mine. I think my coat has only been worn about two months, and I must say that I think it [the learned doctor holding up his arm] a very fair coat; at least it is not rusty enough for me to throw away. I, therefore, from that circumstance, have a little doubt about the reality of all her details; that, however, is the only circumstance that made me doubt it. According to her account her husband's coat has been worn three months, but my coat has only been worn two. In other respects she is very consistent. She cannot bear black and white together; they are very pungent to her eyes, on account of the contrast. The moon has a great effect upon her, by causing shadows and contrasts in the room at night. Dr. Ross's gay bouquet of shining seals drove her almost crazy. She speaks very much of blue, as a colour which she seems to bear best; and she says that the blue curtains and counterpanes in the hospital have been the making of her. She has got a quantity of blue paper, which she spreads over that part of the sheet which is turned down in the day. She has a pair of spectacle glasses, in which she has placed blue linen; she wears a green bonnet; she says that red is also very painful to her, and gives her great distress; it makes her very thirsty, so that one day she drank seven

quarts on being suddenly exposed to the sun in a ward full of beds with red curtains. I asked her what would be the effect of a regiment of soldiers passing before her in the sunshine; she considered that it would be instant death.

Now this woman is very clever; she is remarkably shrewd, but very odd; there is a great eccentricity about her. I cannot pronounce her mad—that would be wrong; but she is very eccentric; and though I do not doubt the reality of the morbid sensibility of her eyes, I know she is hypochondriacal, and suffers from every little uneasiness of body. Pope says,

"Strange graces still, and stranger flights she had,

"Was just a tudy, and was just not mad."

If the disease were real, it strikes me that the most rational mode of treatment would be—as there is no sensible heat of the head, no pain, no feverish symptoms, except a heat she says she feels in the vagina, and aerial and alimentary mucous membranes—such narcotics as deaden particularly the optic nerve. Now belladonna appears to have that effect, and therefore she had belladonna smeared around her eyes, and she opens them more frequently than before; she now opens her eyes when holding her head down. Since the last visit, from having belladonna smeared round the orbits, and kept there for twenty-four hours, she looks about more than before. Stramonium has a power likewise to deaden the optic nerve. When you are giving stramonium on account of other disease, you find that one of the symptoms which patients complain of is, dimness of sight; sometimes they see nothing for some hours. If belladonna fail externally, I shall give her stramonium or it internally.

I have been told that the extract of stramonium, smeared around the orbit, will dilate the pupil exactly as belladonna does, but I do not know from my own experience whether that is the fact.

Extraordinary Case of Discharge of Oil from the Bowels, and Sugar from the Urinary Passages.

There is likewise another very extraordinary case in the house, in Jacob's ward—a case of which I have never seen above one or two instances before, and I never had such an opportunity of examining it. It is the case of a man who, for three years, has discharged oil in large quantities from his intestines. The man is also labouring under diabetes, discharging sugar from the urethra, while from his rectum he daily pours forth an abundance of oil. The case must be very interesting to chemists, on account of such a double manufacture going on. Four of the first chemists in this country have had specimens, which they have examined, and they found the discharge to be genuine oil.

After a motion it flows from him liquid, and then it concretes. Of course you have all seen it swimming in yellow flakes over the contents of the vessel, of the colour of unblanched bees' wax. A case of this kind is mentioned by Mr. Howship in one of his works; he says the lady took a pint of oil, and it immediately stopped the manufacture. I gave this man six ounces of sweet oil, not knowing what to do with the case, and trusting to the case recorded by Mr. Howship. He took three ounces, and was sick; he then took the other three, and they stayed down; and he has made very little oil since. He has phthisis into the bargain, so that he is producing three foreign substances—oil, sugar, and pus. Of course he must die. He has been inhaling chlorine with very great advantage: it has diminished the expectoration, and also the cough exceedingly, so that he has hardly anything to complain of. He is sinking under the disease of his lungs, kidney, and intestines, but he will hardly allow that he now suffers at all. I may mention that I tried iodine for his phthisis, but it distressed him very much even in the most minute quantity: the chlorine, however, he bears perfectly well. I shall lay the case before the Medico-Chirurgical Society next winter, together with several others of the same kind, which I have collected.

[To be concluded in our next.]

REPORTS OF CASES OCCURRING AT PUBLIC INSTITUTIONS.

LYING-IN HOSPITAL, DUBLIN.

SINGULAR CASE

OF

EXTRA-UTERINE PREGNANCY.

REPORTED BY

ROBERT COLLINS, M.D.

Master of the Hospital.

HONOR CORMICK, aged 35, was sent to the hospital (from a distance of twenty miles,) on the 31st of August, at 11 o'clock, A.M. reported to be suffering from retention of urine and retroversion of the uterus.

On examination per vaginam when admitted, I found a large tumor pressing down between the vagina and rectum, so low as nearly to press on the perineum, and on introducing the finger into the rectum, it was found to fill the entire hollow of the sacrum. The tumor was tense, and in some parts elastic; and in one or two places, fluid could be felt.

When the hand was placed on the abdomen in the region of the bladder, a large elastic tumor was felt, which, on first exami-

ation, I took for the distended bladder; however on the introduction of a long gum elastic catheter, not more than a table spoonful of urine came away. Several catheters were introduced all with the same effect, yet the tumor still remained.

The woman had passed about half a pint of urine without assistance after she came in, and as but a small quantity came away on the introduction of the catheter, and not only that, but the flexible catheter could be distinctly felt, coiled up in the bladder immediately behind the pubes, it was concluded that the tumor above the pubes could not be the distended bladder.

The urine had been drawn off the day previous to her entering the hospital by the surgeon who sent her in, and several attempts had been made by him on the morning of the day she was admitted to introduce the catheter, but without effect. The flexible catheter, however, passed into the bladder with little difficulty.

Her pulse, when admitted, was about 130; her countenance indicated much distress, and it was evident her strength would not hold out for any length of time, if some immediate relief was not procured; in fact, death seemed near at hand. She had given birth to a child about fourteen months ago, and had weaned it about eight or nine weeks. She had always been in good health until five weeks previous to her coming to the hospital, at which time she said she received a fright, in consequence of some family arrangements going contrary to her wishes. She had no very urgent distress until the day before she was admitted, when she became unable to pass her urine.

For the last five weeks she had been complaining of shooting pains through the abdomen, and a bearing down feel about the loins and pelvis, with frequent desire to pass urine, although she had no difficulty in doing so. She stated her bowels to have been always regular. She said she did not know whether she was pregnant or not, as she had no menstrual discharge for nine weeks, and she also added, that she never had had more than one change from the time she weaned her child, until she became again pregnant; she had five children.

The tumor in the vagina did not feel like the retroverted womb when pregnant, yet the os uteri was dragged quite close under the arch of the pubes, but the orifice of the urethra was not displaced.

I introduced several instruments through the mouth of the womb, for the purpose of rupturing the membranes of the ovum if she were pregnant, but no membranes could be felt, nor did any water come away, notwithstanding I passed instruments, curved in different directions, at least three inches within the cavity of the uterus.

Frequently on the introduction of a large

catheter, when it was withdrawn, something resembling small hydatids were found in the openings which were in its extremity, and which had been made large for the purpose of drawing off the urine in a case where it was of thick consistence, and in one instance, a few drops of bloody fluid came away.

These circumstances led me still more strongly to suspect that she was not pregnant, and that the uterus must be distended either with hydatids, or some soft fungous tumor; but as it was doubtful, I called in the consulting physician, Doctor Labatt, and Mr. Colles, the consulting surgeon. The former suggested that the tumor in the vagina might be in consequence of enlargement of the uterus itself; and the latter suspected that it might prove to be fungus hæmatodes of the uterus.

The os uteri was not more dilated than to admit the passage of a large catheter, and the mouth of the womb was thick and unyielding, so much so as to forbid any attempt to pass even the finger into the uterus.

When the patient was placed on her elbows and knees in bed, by gentle efforts with some of my fingers in the vagina, and the fore-finger of the left-hand in the rectum, I was able to raise the tumor as high as the natural situation of the uterus; but as soon as the hand was withdrawn, it fell down to its former situation.

We now agreed to leave her till the following day, as she was extremely feeble, and in the meantime have the bowels opened, the abdomen frequently stumped, and to give her an opiate at bed-time, as she had not slept for several nights.

She was ordered an ounce of Castor oil, with three drachms of Tincture of Jalap, which was repeated in the evening, as the first had no effect.

September 1st, 9 o'clock, A.M. pulse 140, and very feeble; tongue tolerably clean; countenance sunk and ghastly; skin cold and clammy; bowels have not been opened; stomach rejected the second, and also a third draught which she got; drinks very little, and her stomach rejects every fluid; wine whey, cold chicken broth, beef-tea, wine and water were tried, but very little of these remained on the stomach.

Ordered the common saline effervescent draught, with the addition of one ounce of Rochelle salt to eight ounces, to be taken with lemon juice every half hour, until the bowels yielded; also to have an injection thrown up every second hour, with a large syringe and long flexible tube.

One o'clock, P.M. (hour of consultation) continues much in the same way as in the morning; bowels have not been opened, although she has taken the draught every half hour, and her stomach has been somewhat settled by it.

Ordered one grain of calomel every second

hour; draughts to be continued; injections to be thrown up frequently, and the abdomen staped.

9 o'clock, P.M.—Pulse 140, and very feeble; she seems gradually to become more exhausted; bowels have not been opened; stomach now rejects the draughts and calomel powders; also her drink.

Ordered two pills, each containing five grains of calomel, and a quarter of a grain of opium, one to be taken at ten o'clock, and the second in three hours; injections, to be given frequently. To have some beer to drink, for which she expresses a wish.

September 3d, 9 o'clock, A.M.—She expired at four o'clock this morning, and her bowels had not been opened previous to death.

Postmortem Examination., 2 o'clock, P.M.—On opening the parietes of the abdomen, the small intestines presented appearances of inflammation in many parts. A quantity of blood was seen in the hypogastric region among the intestines; the pelvis was filled with coagulated blood, and, on passing the hand into this cavity, it discovered a firm body larger than an orange, and of a globular form, which it required some slight force to raise. This tumor had burst, and a fetus about two months old was expelled from a cavity in its centre; however, it was still attached to the interior of the sac by the funis.

The uterus was somewhat larger than natural, and there were some very small excrescences growing on its interior surface, some of which had come away at the time the catheter was introduced. In other respects the uterus was quite healthy, and on the most minute examination, both of the uterus and fallopian tubes, not even a trace of an opening could be found, so that the fetus must have been formed without the uterus, from the period of impregnation.

The fundus of the uterus was forced considerably backwards and downwards, but the sac in which the fetus had been formed, was the tumor before mentioned, that was felt pressing so low on the introduction of the finger, both into the vagina and rectum, and the effused blood added greatly to its bulk and elasticity. In fact, the cavity of the pelvis was completely filled with blood, and it is most probable that it had been escaping for several days previous to death; perhaps, in consequence of the escape of the fetus from the cavity in which it was formed, and also in consequence of a partial separation of the sac from the part to which it was attached, as it was adhering very slightly when it was discovered, and the entire sac, with the fetus attached to it, was lifted out of the cavity of the pelvis, without using much force, nor was there the slightest connexion between it and the uterus, or its appendages*.

* From the Dublin Medical Transactions. New Series.

APHORISMS IN THERAPEUTICS.

A very small bleeding at first is often sufficient to stay an effusion into a parenchymatous organ; while even a copious loss of blood is insufficient to dissipate it when once it has taken place.—*Broussais*.

Pains in the thighs, sympathetic of an affection threatening the brain, are often mistaken for sciatic pains; but they may be distinguished by their inconstancy of position; one time they are along the track of the sciatic nerve, another time along the crural; besides, there are generally co-existent certain pains in the arms, &c.—*Cayol*.

The least obscurity of sound beneath the clavicle is worthy of observation, for that is the spot of all others which is most sonorous in the chests of those who are healthy.—*Laennec*.

A looseness is a very rare symptom in acute diseases of the chest.—*Idem*.

A severe laryngeal angina frequently leaves after it a loss of voice for several months.—*Idem*.

ANOTHER RESIGNATION IN THE LONDON UNIVERSITY.

(From a Correspondent.)

Of the numerous resignations which have occurred at the London University, the one we have now to mention is, on various accounts, the most important which has hitherto taken place. The Elephant, that sagacious creature, whose wonderful instinct makes him judge with unerring precision what structures will bear his weight, and what are likely to crumble beneath his pressure, has given notice of his intention to quit. There is something ominous in this; and we think the Council ought to have made every sacrifice rather than suffer the greatest character in their institution to withdraw; especially when it is known that he would have staid with them for a consideration of £00l. The colossal remains of poor "Chuny" have found an asylum, and we trust a permanent one, in the Museum of John Hunter.

PRACTICAL CHEMISTRY.

We recommend to the notice of our younger friends the prospectus of Mr. Pereira's Course of Practical Chemistry, to be found on the wrapper of our No. for June 4. The plan of combining practical manipulation with lectures appears to us to be calculated to make the pupils good chemists; in fact, it is as necessary for a thorough acquaintance with the subject to handle the agents and the apparatus, as it is to dissect in order to become a good anatomist.

* The name of this majestic elephant when at Exeter 'Change.

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OBSERVATIONS
ON THE
APPLICATION OF CHEMISTRY TO
PHYSIOLOGY, PATHOLOGY, AND
PRACTICE.

By WM. PROUT, M.D. F.R.S.

*As delivered by him, in the Goulstonian Lectures,
at the College of Physicians.*

LECTURE II.—concluded.

*On Diseases connected with the Derange-
ments of Staminal Principles.
On the Operation of Remedies on dif-
ferent Staminal Diseases.*

THERE is an interesting and important point of view in which the preceding subject may be yet considered, namely, the diseases—the staminal or constitutional diseases—if I may be allowed the expression, connected with the imperfect development of the principles composing animal bodies, or the derangements to which they are liable.

First, *of the Diseases connected with the Saccharine Principle.* Of all the staminal diseases those more immediately connected with the saccharine principle may be considered in general as the most formidable; and if fairly established, they seldom terminate but with the life of the patient.

Of Diabetes.—In this disease, the essential and merorganizing changes seem to be more or less suspended, while the reducing power of the stomach goes on even more rapidly than in health. The food, therefore, is quickly dissolved and absorbed; but as the merorganizing processes do not take place at all, or only very imperfectly, the products

formed are unfit for the purposes of the animal economy, and consequently are ejected from it in self-defence. This view of the nature of diabetes places the principal errors in the digestive and assimilating functions; and no one who has studied the affection can, I think, for a moment hesitate to assent to this view; but the kidneys, also, are undoubtedly involved in it; and as the natural action of these organs, as will be more particularly noticed presently, is of a dismerorganizing character, these undo what little had been done by the assimilatory organs, and the result is, that the alimentary matter is thrown out in the crystallizable form.

A saccharine condition of the urine, in a minor degree, is by no means an unusual occurrence in various forms of dyspepsia, more especially in old gouty subjects; and in this state it can hardly be considered as dangerous, at least not more so than many other urinary derangements: but when completely established in the form of diabetes, I need not say that it may be considered as one of the most formidable diseases to which humanity is liable. The quantity of urine may, indeed, be easily reduced in most cases, within proper limits, by judicious treatment; but in every instance in which I have hitherto had an opportunity of examining it, the saccharine tendency has remained in a greater or less degree, or has only given way to something still more formidable, as irremediable phthisis, or, in one or two cases, to diseases of a malignant tendency. Diabetes is not often attended by any visible organic disease, probably on account of the very soluble nature of sugar; but if, in the ordinary state, this principle was a solid instead of a

liquid, there is little doubt that morbid growths, or organic diseases, would be the consequence.

Another disease, or set of diseases (for there are many), originating in the saccharine radical, is connected with its acidification, or the formation of oxalic acid. Some of these are remarkable and very characteristic. In the first place, the formation of oxalate of lime in the shape of urinary calculus, may be mentioned as one of the most usual and obvious; and it has been principally by close attention to the phenomena and symptoms usually accompanying this form of concretion, that I have been gradually led to the little knowledge I possess on this subject. One very important class of affections, frequently connected with the formation of oxalic acid, are certain skin diseases; these, from slight scaly crusts down through every intermediate stage to boil, carbuncle, and even malignant forms of disease, as fungus hæmatodes, often accompanying a tendency to saccharine diseases, either in the shape of sugar or oxalic acid, or more frequently both. When, in particular, the oxalic diathesis prevails, it is rare not to find the skin more or less affected, either in the shape of scaly spots on the arms or legs; or troublesome boils, which, in advanced life and more inveterate forms of the affection, sometimes assume the shape of carbuncles. I have several times seen impetiginous affections accompanied by a temporary saccharine condition of the urine, and, after this has disappeared, succeeded by malignant disease of the bladder, of the kind usually termed fungus hæmatodes. Even in those cases in which there is not actual disease, when oxalic acid is generated in the system to much extent, the skin often assumes a peculiar character difficult to describe, and a livid tint mixed more or less with green or yellow; and the venous blood is often of an unusually dark colour. Together with this state of things there is generally extreme nervous depression or irritability, accompanied by flatulency (arising from the extrication of immense quantities of azote), irregular action of the heart, and a state of mind almost bordering on insanity. And in those predisposed, any thing producing great nervous depression, or anxiety, seems sometimes capable of inducing the affection; certainly, at least, of much aggravating it,

when it already exists. There is one variety of phthisis connected with affections of the saccharine radical, and it invariably proves the most irremediably fatal. When large calculi of the oxalate of lime exist in the kidneys, they are very apt to be accompanied by organic disease, and the blood voided with the urine is generally of a very dark or greenish colour. If our time permitted, several other curious circumstances connected with the present subject might be pointed at; but I hasten to consider another set of diseases connected with derangements of the saccharine radical; namely, the formation of *acetic acid*.

One of the most frequent diseases connected with the formation of acetic acid is a variety of the fever usually termed hectic. The constitutional disturbances connected with this form of disease are too well known to require description here, and every one must have noticed the strong sour smell of the perspired fluid which is sometimes thrown off by the skin in the colligative sweatings, and which is produced by acetic acid. Occasionally all the secretions contain more or less of this acid; and I have more than once smelt even the breath impregnated with vinegar, and found the saliva strongly acid from the same cause, a short time before the death of a patient.

I have been informed that the fluid thrown from the stomach in yellow fever, and termed the *black vomit*, is often strongly acid; and some circumstances induce me to believe that the acid is, in part at least, the acetic, but I have had no opportunity of verifying this notion.

Such are a few of the most usual and important diseases connected with derangements of the saccharine radical. There are many others of a less obvious character, but perhaps it may be observed that, in general, almost all the more important organic diseases, of a chronic and malignant character, are more frequently connected with this principle than with either of the others; probably no less from the nature of the matters generated than from the originally less vital character of the textures themselves, in which this principle predominates.

Of Diseases connected with the Oleaginous Principle.—Two instances have come to my knowledge in which large quantities of fatty matter have been given off from the bowels.

These, of course, have been passed in the fluid state, but on cooling have become solid and assumed the usual appearance of stearine. In both these cases the intestinal canal was found diseased after death. In the one case the colon was particularly affected; in the other the duodenum. The last case occurred to Dr. Elliotson at St. Thomas's Hospital, to whom I am indebted for the particulars. The patient was diabetic, and latterly phthisical. This affection may be considered, in some degree, as analogous to diabetes, the oleaginous being substituted for the saccharine radical. Indeed, in diabetes the fat often undergoes a remarkable change in its appearance.

I need scarcely more than allude to the well-known fact of the frequent existence of steatomatous, or fatty tumors, the occurrence of which in various parts of the body may be considered as morbid depositions, little connected with life, and generally quite free from malignant tendency. When they occur, however, in habits in which the saccharine radical is likewise affected, they often appear to add to the malignancy of the affection; and under these circumstances great quantities of fatty, brain-like matter, are thrown out, in conjunction with the other diseased materials.

There are several subjects of great interest connected with this principle, which, if our time admitted, might be dwelt on—such as the presence or absence of obesity at particular periods of life, and under certain conditions and diseases of the animal economy; certain affections usually termed *bilious*, and especially the formation of *cholesterine*, a modification of the oleaginous principle, the chemical properties of which satisfactorily explain the formation of biliary concretions, &c. But I hasten, in the last place, to consider very briefly the

Diseases more immediately connected with the Albuminous Principle.— Sometimes the albuminous matters pass through the kidneys unchanged, and appear in the urine either in the shape of chyle, and constituting the disease termed chylous urine (to be more particularly described in our next lecture), or in the shape of serum of the blood. Sometimes the lithate of ammonia is mixed with the albuminous matters, and I have seen a series of substances in the same urine, apparently in a

variety of intermediate grades, between albumen and lithate of ammonia; thus clearly proving the origin of the latter compound, and the dismerorganizing power of the kidneys. Hence, in ordinary conditions of the animal economy, either in its natural state or under the excitement of fever, &c. it may be inferred that the imperfectly formed or dismerorganized albuminous matters are principally got rid of in the shape of lithate of ammonia in the urine. Thus, if an individual, otherwise in good health, eats a little too much, especially of animal food, the urine afterwards will be generally found loaded with lithate of ammonia and the matters usually accompanying it, and which, if he has been indolent, and the weather cold and chilly, will generally appear in the form of a sediment; but if he has been active, and the weather warm, will be usually retained in solution. So also when a portion of the albuminous matters already existing in the system is rendered unfit for the purposes of the economy, by feverish or inflammatory attacks, or any other cause, it is usually got rid of in the same way. These circumstances are liable to a variety of modifications, in different ages and in different constitutions, but they present, in general terms, an explanation of the appearance of lithate of ammonia in the urine.

Another very usual and obvious state of disease connected more immediately with the imperfect development and deficient merorganization of the albuminous principle, is *strums*, in all its different forms and degrees. The curdy matter so well known to exist in these affections is nothing more nor less than the imperfectly developed albuminous matters which had escaped the merorganizing process in a great degree, or otherwise had not been raised to the healthy standard fitting it for the purposes of the animal economy. If this ill-developed principle remained in solution, it would, no doubt, like the sugar in diabetes, be thrown off by the kidneys, or in some other way, and thus the constitution would escape at least its secondary effects; but unfortunately it retains so much of the properties of albuminous matter as to undergo a sort of coagulation, and thus assume more or less of a solid form, in which state it is much more difficult to be got rid of; and hence its proneness to appear in the form of morbid growths, or depo-

sits, giving rise to unhealthy abscesses, &c. more especially in those parts where inflammation from any cause has been excited, and where consequently the motion of the blood in the capillaries has become impeded. From what has been said, it will of course be anticipated that I am disposed to agree generally with those who think it probable that the origin of strumous tubercles in the lungs may be often ascribed to depositions of imperfectly developed aluminous matters; as these organs ought, from the circumstances in which they are placed, to be peculiarly liable to such depositions, particularly at that period of life when the constitution is about to become stationary, and before other outlets to these unnatural matters have been established; for strumous habits, perhaps more than any others, afford the most striking illustrations of the powers of the animal economy to adapt themselves to circumstances; and we often see, sometimes early in life and sometimes later, as about the time of puberty or soon after, the kidneys; or the bowels, or both, assume, as it were, an extraordinary action, and afford an immediate outlet to all the ill assimilated and other matters taken into the system: the only organs occasionally suffering, particularly in advanced life, being the kidneys, or other parts through which the drainage takes place. By individuals thus constituted, enormous quantities of food and drink of every description, but particularly of animal food, are usually taken, and indeed required; and which they gobble down with an impunity perfectly astonishing to the individual possessing organs of weak powers, and who is not provided with the necessary accommodation for getting rid of his crudities. Such people, if well fed, and if they take plenty of exercise, often live to old age; but if indolent, they are apt, in advanced life, to become subject to morbid deposits, or growths, constituting various forms of organic disease.

There is another set of substances to be mentioned, connected with the aluminous principle—namely, pus. That pus, in many of its forms, is chiefly of aluminous origin, cannot be doubted; but it is subject to such great variety in its conditions, that they can hardly, perhaps, be all explained on the same principles. The formation of perfectly healthy pus from an open granulating

surface, admits, I believe, of explanation on principles connected with the composition of aluminous matters; but as these have not yet been mentioned, for the reasons already stated, I shall not enter on the subject further at present.

It may be observed that the above observations are to be understood to apply principally to those well-marked instances in which the error chiefly lies in one principle, and the others are affected in a secondary degree only; but I need scarcely remark that it seldom or ever happens that one principle alone is affected without involving, in a greater or less degree, the others; and these combinations often give origin to a variety of modifications of disease.

There is yet another interesting point of view connected with this subject, which we have only time at present barely to allude to—viz. the adaptation of remedies to constitutions in which the different staminal principles are affected. In a practical point of view, this is often a matter of the utmost importance, and one upon which, at some future time, I hope to offer some remarks.

Lastly, it remains to be mentioned, that the old doctrine of *temperaments* is closely connected with, or dependent on, the prevalence of one or other of the staminal principles.

LECTURE III.

Chemical Properties of some of the more important Principles of the Urine—Of Chylous Urine—Urea—Cystic Oxide—Lithic Acid—Purpuric Acid, &c.

In the present lecture it is my intention to exhibit to you a few of the leading chemical properties of some of the more important principles occurring in the urine, and at the same time to take a concise view of an interesting and very rare form of disease connected with

Albuminous Urine; or rather that variety termed *chylous urine*, and which, I believe, was first distinctly described by myself in my little work on urinary diseases. Since that time, principally by the favour of different friends, I have seen more or less of eight other cases of the same affection.

The properties of the urine in this disease, (of which I here exhibit a speci-

men) have been so minutely described in the work above alluded to, that I do not think it necessary to enter very minutely into the subject at present, particularly as many of the phenomena require close attention, and can scarcely be exhibited in a public lecture. The leading circumstances are, that in general this urine so nearly resembles chyle in all respects as to be scarcely distinguishable from it; that it occasionally passes on the one hand into blood, and on the other into lithate of ammonia; that the chylous state is generally found to be more marked two or three hours after eating; while in the morning it is sometimes nearly absent; lastly, that its specific gravity little exceeds, and sometimes does not equal, that of healthy urine; so that unless the quantity of urine be inordinate, which is sometimes the case, the drainage from the system does not much exceed that of health—a circumstance accounting in some degree for the little constitutional disturbance generally produced by this affection.

The following conclusions may be drawn from the cases which have occurred to me.

First.—This disease occurs in both sexes before and after puberty. Of the nine cases, four were males and five females; and two cases occurred before puberty, one, namely, in each sex.

Secondly.—The majority of the cases, five out of nine, occurred either in natives of hot climates, or in individuals who had been resident for many years in such climates.

Thirdly.—The general health suffers much less from the affection than might be expected. There is commonly more or less of emaciation, accompanied by uneasiness, usually described as a sense of heat, or pain in the region of the kidneys, but sometimes these are entirely absent. The disease does not interfere with the pregnant state, nor with the secretion nor qualities of the milk, and may continue more or less, for a great number of years, without apparently much affecting the constitution. The appetite is generally good, and sometimes inordinate.

Fourthly.—There is evidently an inflammatory tendency in the system during the continuance of the disease, or at least such a tendency frequently arises during its progress, and requires, and is benefited, by blood-letting. Two of the individuals died of inflammatory attacks

of the abdominal viscera—one during the disease, and the other some time after it had subsided; and it is remarkable, that in the latter case the kidney (which, by the favour of Dr. Roe, I here exhibit to you) does not exhibit any marks of organic lesion. It is a singular circumstance, however, that during *acute* inflammation and fever, and also during the presence of pytalism from mercury, the chylous characters of the urine usually disappear, but return again, sometimes in an aggravated form, as soon as these have subsided. In the chronic state of the affection, the complaint has yielded completely for a time to the use of opium, astringents, and the mineral acids, but in other instances, these and every other remedy tried have failed. Sometimes the complaint ceases spontaneously, and occurs again after a long interval, and when it has once occurred it appears to be very liable to return, particularly after exposure to cold, or any cause producing fever. In general I have observed that all stimulating remedies and powerful diuretics do harm: the same may be observed in general also of tonics, which, from the inflammatory character of the affection, do not in general agree well, and, indeed, I have seen the affection much aggravated by their use.

Lastly, what is the intimate nature of the disease? The intimate nature of this affection, like that of all others, is obscure; but the principles developed in our former lecture seem to throw light on its general nature, and, by directing our attention to the right road, may at some future time enable us to follow out its nature in detail. That both the assimilating organs and the kidneys are involved in the affection, cannot, I think, be doubted. The chyle, from some derangement in the processes of assimilation, is not raised to the blood standard, and consequently, being unfit for the future purposes of the economy, is, agreeably to a law of the economy, ejected through the kidneys; but these organs, instead of disorganizing it as usual—that is to say, instead of converting it into the lithate of ammonia—permit it to pass unchanged. That this is a just view of the matter, cannot, I think, be doubted; for if the chyle was properly converted into blood, this fluid, and not chyle, ought to be thrown off by the kidneys. On the other hand, it may be stated

as an argument in favour of the notion that the kidneys are affected, that I have often found chyle in the blood when the urine was entirely free from albuminous matters; shewing that, in the healthy state of those organs, even though chyle does get into the sanguiferous system, it is not necessarily ejected, or, if it is, that it undergoes the usual changes in passing through the kidneys. This affection of the kidneys, however, like that in diabetes, does not seem to amount to organic disease, at least such as is cognizable by the senses.

The next principle occurring in the urine, on the properties of which I shall make a few remarks, is *urea*. This principle, of which I here exhibit a specimen, has been lately found in the blood. Indeed I detected it, or something very similar, in the blood myself, fourteen or fifteen years ago, but could not at that time believe the evidence of my senses. It has been lately said to have been formed artificially, but I have some doubts on this point, at least as to the manner stated.

Urea I consider as an albuminous product, and one of two principles into which that substance is capable of being decomposed, as I hope at some future time to be able to demonstrate. It plays a very important part in the urine, chiefly of a secondary nature, and which admits of a complete and satisfactory explanation, founded on its composition. I ascertained, many years ago, that it is composed of the elements of carbonate of ammonia and water; and hence the ease with which it is changed into these principles by a variety of substances, particularly by the fixed alkalis and alkaline earths, which, seizing the elements of carbonic acid, set the ammonia free. To the decomposition of this principle is, therefore, chiefly owing an ammoniacal state of the urine, one of the most distressing conditions of this secretion, and one of the most liable to terminate in the formation of stone in the bladder.

Urea occurs as a natural ingredient in healthy urine, but sometimes in much greater quantity than usual; in which case it may be readily detected by the addition to the urine of a little pure nitric acid, in such a way that the two shall mix gradually; when, after a greater or less time, according to the proportion of urea present, the pe-

culiar crystalline pearly compound, which I here shew you, is formed. Urine having an excess of urea is usually of considerable specific gravity (between 1020 and 1030), and is often accompanied by many symptoms somewhat like diabetes, for which the complaint has been occasionally mistaken; but it differs from diabetes in being a curable disease, or at least, by care and attention, it can be so far subdued as to be rendered little troublesome.

The next substance on which I shall make a few remarks is the *cystic azide*. This is of very rare occurrence, and is mentioned here rather as a curiosity. Its properties you will find detailed in all chemical works. One of the most remarkable of these, and by which it can be readily distinguished, is the peculiar smell it yields when heated. This, as it cannot be described, I here exhibit to you. From the little that is known of this substance, it would appear to be generally connected with organic disease.

The last substance on which I think it necessary to make a few remarks, is the *lithic acid*, and some of its products. This principle, in many points of view, constitutes one of the most important principles occurring in the urine. In the first place, it gives origin to stone in the bladder, in at least two instances out of three; secondly, combined with ammonia, it constitutes the basis of the most usual sediments occurring in the urine; combined with soda it gives origin to the gouty chalk-stone, and sometimes to sediments in the urine, and even concretions in the bladder. When modified it is converted into the purpuric acid, the principle constituting the colouring matter of the lateritious and pink sediments, and which are generally essentially composed of the lithate of ammonia, as before mentioned.

The lithic acid, when pure, is a perfectly white crystalline powder, very insoluble in water, but readily soluble in alkalis, and forming various compounds with them. When first precipitated cold from its solution in potash it exists in the state of a hydrate, and assumes the form of a bulky gelatinous mass, which does not begin to crystallize for a considerable time. This is a very important point connected with the pathological history of this principle, as the state above alluded to is that in which it is first separated from the kidneys, and

often exists in the urine, and the knowledge of which will enable us to explain almost all the phenomena of lithic acid gravel.

The lithate of ammonia is principally distinguished from lithic acid, by its greater solubility in water, and by its yielding ammonia when treated with a fixed alkali. It often forms a portion of lithic calculi, but seldom entire calculi; and when this is the case, it generally occurs before puberty.

Where there is a strong tendency to the deposition of lithic acid in the urine, and the patient under these circumstances takes the carbonate of soda, the urine will often be found to contain the lithate of soda; and I have seen this substance occasionally constituting a considerable portion of a urinary calculus. Hence, for some years past, I have made it a rule to give the carbonate of potash when the lithic acid prevails in the urine. In explanation of these circumstances, it may be remarked, that the alkalies pass the kidneys when taken in large doses, and combine with the lithic acid either in the act of being separated, or after it has been separated by the kidney.

It remains, in the last place, to make a few remarks on the *purpuric acid*. I am induced to notice this substance here for two reasons; first, its great importance in a pathological point of view, as constituting the principal colouring matter of the various lithate of ammonia sediments; and secondly, because its existence has been denied by the French chemists, and been doubted by some in this country. With pure lithic acid, and a little ordinary dexterity, I do not consider it as at all difficult to prepare, and am quite at a loss to account for the failures that have been said to have taken place on the subject. The first step consists in dissolving as much pure lithic acid in pure nitric acid, rather diluted, as it will take up. The solution when concentrated and put by in a cool place, will soon deposit large transparent and colourless crystals, constituting the *erythric acid* of Brugnattelli. These crystals are to be dissolved in water, and while the solution is boiling hot, pure ammonia is to be dropped carefully into the solution till a full purple colour is produced. This (which I here exhibit to you) is the only delicate part of the operation; for too little or too much ammonia injures, if not al-

together spoils, the results. The solution on cooling deposits the purpurate of ammonia in the form of an imperfectly-crystalline dark purple powder. To obtain the pure acid from this, it is to be dissolved in a solution of pure potash, by the application of heat, which expels the ammonia. The solution then gradually dropped into diluted sulphuric acid, is again decomposed, and the purpuric acid falls down in the state of a yellowish or grey powder. It may be still further purified by dissolving it in pure concentrated sulphuric acid, and dropping the solution carefully into cold distilled water, when the purpuric acid is deposited nearly white, and as pure as it probably can be obtained.

The combinations of this acid with different bases, (one or two of which I here exhibit to you,) form some of the most splendid tints in nature, and probably constitute the bases of the colouring matters of many animal products.

ON ANALYTIC CHEMISTRY.

By JOHN ENNIS, Esq.

[Concluded from p. 364.]

To the Editor of the London Medical Gazette.

MR. EDITOR,

HAVING treated of some of the processes necessary to detect the principal acids, I shall now proceed to the oxides: little more can be expected than a general outline; but the reader may depend, as far as I do go, of accuracy in the experiments. Some oxides are susceptible of at least four different degrees of oxidation, and the action of re-agents will vary according to their degrees; others have only one degree at present known: such are the oxides of aluminium, silicium, magnesium, yttrium, glucinum; others have two degrees, as the protoxides and deutoxides of calcium, strontium, borium, potassium, sodium, lithium, uranium, cerium, cobalt, ormium, chromium, and molybdenum; others have three degrees, as the protoxides, deutoxides, and tritoxides of the metals, iron, antimony, copper, lead, and rhodium, and manganese has the protoxide, deutoxide, tritoxide, and peroxide. The oxide of

silicium or silica is discovered by its insolubility in all acids except the fluoric, and a portion heated at the blowpipe with twice its weight of potassa fuses, and is formed into a jelly with hydrochloric acid; the protoxide of iron in combination with acids forming proto-salts, are precipitated white with ferrocyanate of potassa; the persalts of the same imitate blue. The protoxide of manganese dissolves in sulphuric and hydrochloric acid without disengagement of any gas, and these salts are of a rose colour. The peroxide of the same metal, dissolved in sulphuric acid, gives off oxygen, and in hydrochloric acid gives off chlorine. This branch of chemical science is yet in its infancy; and if we look for information even to our best authors, we find they are but little more advanced than ourselves. But if we cannot always find the state of oxidation of the saline product, we can easily find the species of metal: thus, for example, solutions of lead precipitate white with the soluble sulphates, yellow with the soluble chromates, black with the hydrosulphates and soluble sulphurets, and bright yellow with hydriodic acid and the hydriodates, and a tube of zinc inserted in the solution will precipitate the metal in a metallic state. Solutions of cobalt precipitate violet blue with the alkalies, green with alkaline hydrocyanates, and black with alkaline hydrosulphurets, while a small portion treated at the blowpipe with borax forms a beautiful blue colour. A course of complete and efficient remarks on the characters displayed by the different acids, oxides, and metals, would occupy more room than you can spare: let it suffice to say, I disapprove most completely of a long list of tests for the discovery of the presence of any body; a few of the most unequivocal should be fixed upon, and then the analytic chemist, like an experienced general, will commence his battery of attack with due effect, and the result will often exceed his expectations.

The quantitative department of analytic chemistry immediately succeeds the qualitative, for having by this means ascertained the nature or quality of the body, we now regulate our measures accordingly, and separate its constituents into different parts, the summing up the weights of which constitutes the quantitative analysis. In this department of the science, the first

thing to be acquainted with is the knowledge of chemical equivalent numbers: these are often called, especially by Brand, *chemical proportionals*, and *nombres proportionels* in Paris; they are all synonymous, and I think it indifferent which the student takes. I shall take the first denomination, in compliment to Dr. Wollaston, the first discoverer of the scale of chemical equivalents, and their application to quantitative analyses. It is now found that bodies unite in definite or limited proportions, and not in succeeding ones *ad libitum*: thus, if we take 1 part oxygen, represented by the number 8, we must have at least 104 parts of lead to form an oxide of lead, and no intermediate numbers will suffice; and, if we want to form a sulphate of that metal, we must invariably take 112 parts of the oxide to unite with 40 parts sulphuric acid, constituting a sulphate whose equivalent number will be represented by the addition of 40 and 112 = 152. To put this in point, let us take a metallic compound, consisting of tin, bismuth, and lead, which we have proved by the qualitative analysis. For the quantitative we treat the mass with nitric acid in a Florence flask; the tin is oxidized, the bismuth and lead are dissolved; the dissolution is poured off, and the oxide of tin washed and weighed; and supposing there are 66 grains of oxide, we apply this number opposite in the equivalent scale, and it will give exactly 58 metallic tin: the dissolution is now treated with water, which precipitates the bismuth from the nitrate in the state of oxide of bismuth; after this is washed and weighed, if it will give 80 grains, 72 of those will be metallic bismuth, as seen by the equivalent scale: the remaining nitrate of lead must be treated by a solution of sulphate of soda, when a precipitate of sulphate of lead is effected; and if that precipitate amounts to 152 grains, 40 must be subtracted for sulphuric acid, 104 will give the quantity of metallic lead, and 8 the number for oxygen. This scale is almost indispensable in the analytic quantitative department; but if not at hand, the relative proportions of the compound will easily be found by making use of the rule of three in decimal fractions, which plan is generally adopted in the laboratory of the School of Medicine, Paris.

In my essay on chemical manipulation, (London Medical Gazette, last Novem-

er,) I remarked an error in the analysis of marls of M. Beudant, Professor of Mineralogy to the Academy of Sciences, Paris; I now beg leave to substantiate my assertions. In speaking of the analysis of marls, in his Treatise, page 743, he says, "L'espèce d'analyse qu'il faut pratiquer ici est extrêmement facile, car il suffit de peser la morne après l'avoir laissé dessécher, de la jeter dans l'acide nitrique ou muriatique, de filtrer quand toute effervescence est finie, dessécher le résidu, et de le peser. La différence du poids actuel à l'ancien est le poids du carbonate de chaux." And as probably the whole of your readers are not familiar with the French language, I shall give the translation. "The species of analysis necessary to practise here is extremely easy, for it suffices to weigh the marl after having left it dry, to throw it into nitric or muriatic acid, to filter when all effervescence has ceased, to dry the residue, and to weigh it. The difference of the actual weight to the original is the weight of the carbonate of lime." Now, I must beg to inform this gentleman, who deservedly ranks, notwithstanding this little peccadillo, with the most eminent men in Europe, that the estimation of the quantity of carbonate of lime is always erroneous if conducted in the manner directed, for both the nitric and muriatic acids attack instantly the iron that every marl contains, which is often in considerable quantity, and the resulting salts of iron being equally soluble with the resulting salts of lime, are of course carried off together, and this will invariably occasion an error in the summing up of the analysis. The combination of the acids with the iron is instantaneous, whether heat is applied or not, for immediately they precipitate with ferrocyanate of potassa, and form cyanurets of iron. After a course of experimental inquiry upon this subject, I found the following the best process for estimating the quantity of carbonate of lime contained in a marl, or calcareous soil:—100 grains of a marl, near Oswestry, were treated with 100 of nitric acid, and, after the effervescence ceased, 200 of distilled water were added in an evaporating dish placed over an argand lamp: when the mass was evaporated to dryness, the heat was raised for fifteen minutes, and then extinguished: when the mass was cold, half a pint of distilled water was added, and the whole

thrown upon a filter, and edulcorated; the whole of the lime passes, while the whole of the iron remains upon the filter in the state of peroxide: the solution, treated with oxalate of ammonia, gave a precipitate of oxalate of lime, which, collected upon a filter, dried, weighed, and ignited in a silver crucible over a spirit lamp, was converted into carbonate. This I consider of high importance in the province of agricultural chemistry: the carbonate weighed 25 grains. The solution was tested for iron; not a particle was found. The residue upon the filter was tested for lime, by dissolving the mass in hydrochloric acid, without the least effect being produced by oxalate of ammonia, being a certain proof that my process is unexceptionable in producing the lime distinct from other bodies.

In my paper of last November I noticed particularly the extent of operations that may be performed at a table laboratory, and I now beg to describe to those who, like myself, have to brush through the frowns of contracted resources, the variety of operations that may be accomplished with a pocket laboratory, which I employed in the last month during a pedestrian tour in Wales. In my right waistcoat pocket was a small steel mortar and pestle, a magnet and steel in my left; half a dozen watch-glasses, and half a dozen small solid glass tubes, in my right coat pocket; a number of little bottles, one ounce each, packed with tow, in a bag, and consisting of hydrochloric, nitric, sulphuric, and oxalic acids, potassa, ammonia, hydrocyanate of potassa, and hydrosulphate of potassa, chloride of borium, nitrate of silver, and nitrate of cobalt, phosphate of soda, bisulphate of indigo, tincture of galls, tincture of turnsole, and syrup of violets. In my left coat pocket were some pill boxes, containing charcoal powder, borax, carbonate of soda, and ammoniacophosphate of soda; a blowpipe, a platina cup, a piece of charcoal, four metallic tubes of zinc, tin, iron, and copper; six hollow glass tubes, six inches long, closed at one end; a little funnel, a little matrass, a spirit-lamp full, and half a pint of distilled water, with a little filtering paper, a bottle of phosphorus and matches. As the purport of this tour was experiments upon the different rocks and earths I should encounter, I must give some sort of descrip-

tion of mineralogy, and the whole of my acquaintance with this science has been through my humble attainments in chemistry. I am in the habit of dividing minerals into four divisions;—earthiferous, alkaliferous, acideferous, and metalliferous. Among the first division was found some indifferent specimens of siliceous minerals, as quartz crystallized in hexadrons, felspar, gneis, flint stone, and greenstone; in argillaceous minerals, a considerable quantity of clay slate, wack, mica, and honublondi; with varieties of clay loams, in magnesian minerals; asbestic formations on the side of Moelwyn, consisting of silicate of magnesia with earthy tate, and serpentine. I met with no glucim or zirconian minerals. My tour extended from Oswestry to Carnarvon and Menai Bridge, by way of Llandrilo, Bela, and Festiniog, being about one hundred miles. Among the second division, barytic minerals, in the state of sulphates, have been noticed above: I met with none of the strontitic order, but abundance of the calcareous order; in fact, the whole of the mountains on the borders of Shropshire are continued masses of carbonate of lime, with little variations of other strata. As we enter further into Wales, and traverse the Berwyn mountains, sand stone and slate become prevalent. As we descend into the vale of Llandrilo, the inclinations of these strata are remarkably grand, being at angles of 95, nearly perpendicular to the zenith.

I also met with well-defined crystals of carbonate of lime, modifications of the rhomboid, near Lluchruddy. I found no minerals of potassa, soda, or lithia, nor any belonging to the third division, but numbers belonging to the fourth—oxidulated iron, sulphuret of iron, specular iron ore, and sparry carbonate of iron, sulphuret of zinc, peroxide of manganese, sulphuret of lead, carbonate of copper, sulphuret of copper, and oxide of copper, and sulphuret of silver. The peroxide of manganese exists in abundance in the Moel Arenig-fawr, or Great Arenig Mountain, a little above Bala. I took a portion of this mountain, about the size of a pea, powdered it in my little steel mortar, put it into a tube with four times its weight of hydrochloric acid, and submitted to heat at the spirit lamp: the disengagement of a green gas soon took place, which, upon smelling, I easily recognized to

be chlorine. The solution, which was at first black, soon became brown, and finally settled in a pale brown, and was poured into four watch-glasses. A solid glass tube was dipped into hydrocyanate of potassa, and then touched upon the first glass; a precipitate instantly was effected of a bluish white; the second was tested with hydrosulphate of potassa, when a brown white was thrown down; ammonia threw down in the third a little red precipitate; and potassa threw down in the fourth a very copious light brown. Being astonished at the smallness of precipitate thrown down in the third, I separated it by filter, and treated the solution with potassa, which threw down a copious white precipitate, which gradually became darker, and at the expiration of fifteen minutes, settled into a beautiful chestnut brown—the peculiar character of manganese. Another portion of the same specimen was powdered in the steel mortar, put into a small platina cup with double its weight of carbonate of soda, and submitted to heat at the blowpipe: the mass soon became of a brown of a green colour, tinged with a blue—a further proof of manganese. The specific gravity determined by the law of Archimedes was 4.5.

I now beg to conclude with some remarks on the analysis of mineral waters. I am averse, as above noticed, to the employment of too many tests. Gray, in his *Operative Chemistry*, gives a list of 38 for analyzing water. The principle of these essays is to ascertain the gases, the acids, and the oxides, in their free and combined states; and I shall proceed to give the analysis effected by my pocket laboratory of a new mineral chalybeate spring I discovered on the second of last month. On proceeding up the ravine from Pont Aber Glaslyn to Bedd gibert, Carnarvonshire, I was particularly struck with a rush of water that issued from a precipitous rock at the top of the ravine; I tasted it, and found it of an inky taste, peculiar to the chalybeates. I immediately arranged my laboratory, tests, and tubes, in different clefts of the rock: the tubes I filled with the water: the first was treated with tincture of turnsole, which was slightly tinged red, proving the presence of an acid: syrup of violets with the second was not effected, consequently no free alkali; nitrate of silver threw down with the

gave a copious precipitate of chloride of silver, proving the presence of muriates in abundance; chloride of barium had no effect upon the third, consequently no sulphate; the essay for a nitrate was tried at the inn, without effect, by evaporation, throwing the residue on red-hot charcoal, and the treatment with bisulphate of indigo noticed above; oxalate of ammonia threw down with the fourth tube oxalate of lime, in very small quantity; hydrocyanate of potassa had no effect upon the fifth tube, consequently the portion of iron was small; tincture of galls threw down in the sixth tube a bluish black inge; ammoniaco-phosphate of soda had no effect upon the seventh tube, consequently no magnesia; a portion in the eighth tube, which was the mattress, tested with nitric acid, in a little time formed small bubbles at the sides, proving the presence of carbonic acid gas. The chalybeate consists of

Bicarbonate of iron,
Chloride of calcium,
Chloride of sodium.

There is a quantity of red ochre deposited on the surface of the rocks over which it runs: this I scraped off with a knife, and submitted to the following experiments. A portion, the size of two peas, was treated in a tube with nitric acid; a slight effervescence took place, and on applying heat at the spirit lamp, it soon disappeared, while the liquid became pale red. The solution was poured upon a number of watch-glasses:—ferrocyanate of potassa threw down with the first a dark blue precipitate in great abundance; alcoholic galls formed black galeate of iron in the second; hydrosulphate of potassa had little effect in the third; oxalate of ammonia threw down with the fourth a dark white; nitrate of barytes had no effect on the fifth; nitrate of silver no effect on the sixth; ammonia threw down with the seventh a copious brown precipitate, and upon the addition of water it immediately turned of a beautiful bright red. From these experiments I conclude that the deposit from these waters is native peroxide of iron and carbonate of iron; and from the phenomena displayed in the action of ammonia upon the seventh watch-glass, I consider the peroxide in the state of hydrate. Another portion of this deposit was treated with nitric acid; the excess of acid was neutralized,

and the solution poured into two wine-glasses; a tube of zinc was inserted into one, and a tube of iron into the other, with the expectation of metallic precipitates: neither were effected. This chalybeate, then, can be safely recommended; while the scenery around it exceeds in awful grandeur that of any place I have before visited. The gigantic columns of rock that form the sides of the ravine are at least five times as high as St. Paul's;—at the bottom is a good-sized river, endeavouring to force its course through the innumerable masses of rock that have fallen from the summits above; and when the traveller winds his circuitous course along the base, he can with difficulty discern the heavens.

Yours, &c.
JOHN ENNIS.

OBSERVATIONS ON ASTHMA.

By JOHN M'DIVITT.

UNTIL a change take place in the constitution of human nature, selfishness will always continue to be the most powerful, as well as the most prevailing principle in the minds of men. It is not in the least surprising, then, that the medical man generally devotes more of his attention to the disease from which he is himself a sufferer, than to any other; that he feels particularly interested about the elucidation of its nature, and the discovery of what would best act as its remedy. Influenced by a feeling of this kind, I have been for a considerable period of time engaged in the study of asthma, a disease with which I have been long afflicted; and as my case is rather an interesting one, I have resolved to lay it, together with a few general remarks upon the nature and treatment of the affection, before the profession. Should my doing so have any effect in procuring for the subject a greater degree of attention than it has for some years past received, I shall be quite satisfied with the success of my undertaking.

I was scarcely twelve years of age when I first experienced an attack of asthma. It was brought on by my hav-

ing slept during the winter in a room which had been recently erected, and the walls of which were still damp. Considered as a mere cold, which my constitution, otherwise healthy, would of itself shake off, it received but little attention; and no treatment, or at least none of an efficient character, was had recourse to for the space of between two and three years. At this period the disease became both more frequent and more violent in its attacks. Hurried and difficult respiration was the consequence of even moderate exertion; and the slightest change of temperature was sure to be very soon followed by symptoms threatening almost suffocation. Then it was that my state began to excite alarm in the minds of my friends, and that something like active remedies were employed. I was made to wear flannel next my skin; emetics and purgatives were administered; and blisters were repeatedly applied to my chest, the irritation being kept up during the intervals between them by means of heating and stimulant plaisters. This plan of treatment was followed up for a considerable time upon each recurrence of the disease; but it, instead of giving way, made rapid advances. I was often, for weeks together, obliged to pass the night in a chair, with my hands resting on a table which I had placed before me; and thus relieving respiration by calling in the aid of the pectoral and other muscles, which assist secondarily in the performance of that function. Even while moving about during the day, I was compelled to have recourse to an expedient similar in principle to this: it consisted in resting a hand on each thigh. I was thus bent into a half-stooping position; my shoulders were drawn forwards, and nearer to each other, and my condition was altogether truly miserable. There were still, however, intervals during which I was quite free from the affection; and these I now began to improve by taking regular exercise, paying strict attention to diet, and guarding against whatever I had learned from experience to be favourable to a recurrence of the disease. By these means my general health became greatly better, and my asthmatic attacks both less frequent and shorter in duration. When they did come on, blood was taken from my arm by the advice of a physician whom I at this time consulted. At first the blood-

letting afforded me relief, by subduing the more violent symptoms, but its effects became less beneficial at every repetition, and on the whole its operation was decidedly injurious, since it tended not only to prolong the present attack, but by inducing debility, to render me more liable to be affected in future by the exciting causes of the disease.

The introduction of two setons, one in each side, which were allowed to remain in for about twelve months, gave me some benefit, but certainly not so much as to compensate for the pain and inconvenience attendant on them. After the lapse of more than three years, one of these still continued, on the remission of an attack, to throw out a small quantity of matter.

The high eulogiums which had been at one time bestowed on *digitalis* as a remedy in asthma, induced me, although its reputation had then very much declined, to give it a trial. I commenced by taking ten drops of the tincture three times a-day. The advantage which I derived from its use was strikingly great. A few minutes after it was taken, the pulse became softer, more equable, and, I think, rather fuller than before; the sense of constriction at the root of the trachea, as well as that of oppression over the chest, became mitigated; respiration comparatively free and easy; and instead of its former livid and bloated appearance, the countenance assumed in a great measure its natural complexion. In order, however, that these excellent effects should continue to be produced, I found it necessary gradually to increase the dose of the medicine from one quantity to another, till at last I took not less than six drachms in the twenty-four hours. It did not from the commencement produce nausea, vertigo, or a single unpleasant symptom of any kind. Many medical men to whom I have related this part of my case, have been inclined to think that the tincture which I used could not possess the ordinary strength, but on this point I could not possibly be mistaken, as it was prepared by myself, from leaves gathered by my own hands.

I once, for more than a year, used no animal food except milk and butter; but this restriction was far from being advantageous to me. I suffered more from the disease during the last three or four months of that time than for any

similar period, either before or after. Experience, indeed, has shewn me that the diet of an asthmatic should consist, not exclusively perhaps, but certainly in a great measure, of animal food.

For the last three years I have had only five attacks of the disease, and for the last twelvemonth not even one, although I have repeatedly during that time been exposed to the action of causes by which the affection scarcely ever before failed to be excited.

I consider my case, as above related, interesting in more than one point of view. In the first place, asthma does not often attack subjects so young as I was when I first experienced it, and when it does, its violence is very seldom so great.

Secondly, it shews that blisters, setons, &c. with which many medical men are so fond of torturing their patients, though undoubtedly capable of abating the severity of the symptoms, can by no means, however, radically cure the disease. It becomes a question, then, whether the good that they effect be sufficient to make amends for the suffering which they produce. I have not the slightest hesitation in affirming the negative of this proposition: not that I do not think the *occasional* application of a blister, for the purpose of subduing existing inflammation, quite proper. It is the *frequent repetition* of them, after this object has been attained, with the view of preventing *future* attacks, or of eradicating the disease, which I condemn as, to say the best of it, an unavailing practice.

Thirdly, my case proves, as far almost as a single case can, the impropriety of having recourse to the lancet upon every fresh attack of the disease; but upon this point there is now scarcely any difference of opinion amongst medical men.

The last point to which I shall refer is one which claims considerable attention. It is the great benefit which was derived from the *digitalis*, and the large quantity of that medicine which was taken without the occurrence of a single unpleasant symptom. I have often since that time tried the medicine in other cases, though never to so great an extent; and I can confidently say that its virtues, as a remedy in asthma, entitle it to much more consideration than what it at present receives.

As a difference of opinion exists

among the profession respecting the nature of asthma, and its *proximate cause*, I shall here briefly state the conclusions with respect to these subjects, to which a good deal of study and experience has brought me; and shall likewise offer some further observations upon the *treatment* of the disease.

Two theories of asthma have been proposed. According to one of these, it is a peculiar nervous affection, by which spasm of the *bronchiæ* is produced, and by which the respiratory muscles are rendered inadequate to a due performance of their office; while the other ascribes all the symptoms which asthma presents to an excessive effusion of mucus, by which the bronchial tubes are partially obstructed. Now the former of these theories, though supported by the high names of Willis, Hoffman, Hoyer, Cullen, &c. appears to me to throw no light whatever on the nature of the affection: in fact, so entirely ignorant are we of the manner in which the nerves perform their functions, that any attempt to explain the nature of a disease by referring it to a morbid condition of them, seldom serves any other purpose than to throw the subject into still greater obscurity. The other theory, as proposed, and so ably supported by Dr. Bree, is certainly much more satisfactory; but it must, while we grant this, be at the same time acknowledged that facts exist which prove incontrovertibly that excessive secretion of mucus cannot itself be the cause of the disease. In that species, for instance, which is denominated *dry asthma*, there is little or no expectoration; and in the first stage even of the *moist*, the quantity of mucus thrown out by the vessels of the bronchiæ is deficient rather than excessive.

After seeing so many men of eminence fail in their efforts to explain the nature of asthma, I should certainly never have thought of prosecuting the inquiry myself, were it not for the intense interest which, from selfish considerations, the subject excited in me. I have reason, however, to think that the study which I have bestowed upon it has not been entirely fruitless. But I shall at once state the conclusions at which I have arrived, and leave the profession to decide as to their accuracy.

Asthma appears to me to consist, simply and solely, in inflammation of the mucous membrane lining the trachea

and bronchial tubes. By this view of the disease, we will be enabled, I think, to account for the various symptoms which, in its different stages, it presents, in a manner more rational, and more satisfactory, than by any which has been previously taken of it. The sense of constriction at the lower part of the trachea, just where it begins to fork, the feeling of tension and oppression over the chest, as well as the general feverish state of the system, all indicate the existence of inflammation so plainly as to render it a matter of surprise that, in forming their theories of asthma, authors should have almost entirely overlooked its inflammatory nature. The symptoms which shew themselves as the disease proceeds, point, if possible, still more directly to inflammation as their cause. Thus the dry and parched state of the respiratory canal, the burning sensation which, in addition to that of constriction, is soon felt at the root of the trachea, the dull deep-seated pain which exists over the chest, are all together explicable in no other way than by supposing the mucous membrane of the trachea, and bronchial tubes, to be in a state of actual inflammation. The shrill wheezing noise which respiration now produces is owing to two causes, namely, to the unnaturally dry condition of the mucous membrane, and to its being considerably swelled and thickened, so as to render the canal narrower than it is in a healthy state.

The period during which the symptoms of which I have lastly been speaking make their appearance, may be considered as the second stage of the disease; and comprehends that interval which exists between the time when the inflammatory action has become fully established, and that when it has reached its crisis. Soon after this happens, a very considerable change ensues. A copious secretion of mucus takes place; the wheezing noise is not so shrill and so sonorous as before; but respiration is much more difficult, owing, undoubtedly, to the air cells being partially obstructed with mucus, which at once refuses entrance to the ordinary quantity of air, and, by thickly coating the walls of the cells, prevents that which does enter from completely exercising its influence on the blood. The effects of this are soon visible in the excessive languor which ensues, as well as in the livid appearance of the countenance and

the extremities. In such a state a patient could not exist long; but fortunately a highly-beneficial change is on the very point of taking place. No sooner are the vessels of the mucous membrane relieved of their distension by the quantity of secretion which they have thrown out, than the respiratory muscles which, sympathetically affected by the inflammation, had become rigid and inactive, regain their vigour, and by forcible and frequently-repeated efforts, effect an expectoration of that secretion. In proportion as this is done, respiration becomes easier; the blood undergoes more perfectly that change, whatever it is, which is so essential to life; the skin loses its blue and livid colour; the patient feels relieved; and his mind, previously depressed and desponding, becomes buoyant, active, and oftentimes cheerful to extravagance.

It almost universally happens, that whenever a person has been once affected with true asthma, such as that which I have described, he is subject during the rest of his life to a recurrence of it. This is one reason why the nervous system, by the aid of which the theorist always attempts to explain whatever he himself does not understand, has been so generally regarded as the seat of the disease. But it is well known, that when any organ has been once attacked by inflammation, there is created in it a disposition to inflammatory action, which becomes increased every time that such action is re-excited in it. If this be true, as every one must grant it to be with respect to the liver, the tonsils, &c. is there any cause why it should not be so with respect to mucous membranes likewise? I, for my part, am not acquainted with any. I perceive, on the contrary, the same truth to hold with respect to the mucous membrane lining the urinary canal; and I cannot possibly see why the analogy should not extend to that which lines the respiratory.

In attempting to shew how utterly inadequate to explain the nature of asthma the nervous theory is, I by no means intended to assert that the nerves are entirely unconcerned in the disease. What I meant to say is, that the nerves are not more affected in asthma than they are in any other inflammatory affection.

There is one circumstance which, at first view, may appear quite inexplica-

le, if asthma be considered as mere inflammation of the mucous membrane lining the bronchial tubes. The circumstance to which I allude is the comparative freedom in breathing which the asthmatic experiences during the day. Now, it may be said, taking that view of the question which has been proposed, are we to account for such an intermission? Does the inflammation, like the spirits of which we have heard so much in childhood, fly off as soon as the cock crows? The objection certainly seems a powerful one; but it loses its validity when we consider, that the changed state of the atmosphere during night is quite sufficient to account for the greater violence which the symptoms then assume.

Having seen that asthma is purely an inflammatory affection, it might be expected that general blood-letting ought to supersede every other remedial measure, at least in all cases where the patients are strong, and in other respects healthy. But if, relying on this expectation, a practitioner were to use the lancet thus freely, his practice would turn out any thing else than successful. Not that there may not occur cases in which, either from a very plethoric state of the patient, from unusual violence in the disease itself, or from its being complicated with some other inflammatory affection, general blood-letting may become necessary. But even in such cases, its utility consists solely in substituting for the evils to which the disease, if unchecked, would lead, other less ones of which it is itself the cause, namely, a more protracted recovery from the present attack, and a greater liability to a recurrence of the affection. Surely, then, general blood-letting should never be practised in asthma, unless when the urgency of the symptoms absolutely demands it. But the truth of this proposition by no means disproves the inflammatory nature of asthma. We know that in inflammation of the other mucous membranes patients usually bear the abstraction of blood very badly. This has been often observed with respect to the mucous membrane of the intestines. When it is inflamed, the loss of ten or twelve ounces of blood will produce fainting in a patient, who, if the serous membrane were the seat of the inflammation, would bear to lose twenty or twenty-five ounces, without being much affected. Of the

cause of this difference we are totally ignorant. The fact itself, however, is sufficient for my purpose.

Although but very few cases of asthma require general blood-letting, or are benefitted by it, yet there is scarcely one in which great advantage may not be derived from the abstraction of blood locally. A number of leeches applied under each clavicle, as well as above the sternum, will most frequently be productive of speedy and extensive relief. Fomenting the throat too; or, what is still better, inhaling the steam arising from a mixture of hot water and vinegar, has a most excellent effect in soothing the irritability of the mucous membrane, relaxing the tension produced by the fulness of its vessels, and either subduing the inflammation entirely, or bringing it sooner to a crisis. Of the inhalation of iodine, oxygen, &c. I can say nothing from experience.

Emetics, I believe, are seldom useful, and never requisite in asthma. Indeed, in most of the affections in which they are, or used to be employed, their operation is any thing but advantageous. The unnatural action which they induce in the stomach, and in the upper portion of the intestines, generally leaves behind it a weakness and want of tone, which are by no means easily remedied. I have often heard a patient complain, six or eight weeks after he has taken an emetic, that, ever since that time, he has been distressed with a sinking sensation of the stomach; that his appetite has been had; and that his bowels have been very much deranged, being now excessively purged, and at another time obstinately costive; and, on looking at his tongue, I have found it covered with a dirty, clammy fur, of unusual thickness. When, therefore, there exists in asthma, as there generally does, a disordered state of the stomach and bowels, a simple saline purgative or two will be found of much more advantage than an emetic. Indeed, in the case of young patients, I have not unfrequently seen an attack of the disease completely arrested by the administration of rather a large dose of sulphate of magnesia, or of Glauber's salt.

After what I have said in the relation of my case respecting the good effects of the *digitalis*, it is quite unnecessary for me to recommend it here. On the use of antimonials, Dover's powder, &c. in asthma, as nauseating and diaphoretic

medicines, I shall say nothing; as their utility in inflammatory affections of every kind is well known, and almost universally acknowledged.

Not many years since it was the common practice to administer in asthma a number of medicines, which, from their antispasmodic qualities, were considered highly beneficial in that disease. This practice, the offspring of a most erroneous theory, has now fallen into pretty general disuse; for experience has shewn, that such medicines, by their stimulant powers, only aggravate the symptoms. There is, however, one species of the disease in which they are probably useful. The species to which I allude is that which is usually denominated *dry*, but which might very properly be termed *chronic asthma*. It is most frequently met with in persons advanced in life, many of whom were, in early years, sufferers from the more acute form of the disease. Its symptoms are comparatively mild, but it very seldom has any thing like perfect remissions. It is often relieved by *galbanum*, *assafœtida*, or *ammoniacum*.

I have never, I regret to say, had an opportunity of examining after death the bodies of asthmatics. I have, therefore, in the above observations, referred solely to the symptoms during life for proofs of the correctness of my opinions. The further evidence in their favour, which may be drawn from the *exciting causes* of the affection, is so likely to obtain due estimation from all who turn their thoughts to the subject, that I have thought it unnecessary to insist upon it.

Kegworth, Leicestershire,
June 1, 1831.

PUERPERAL FEVER.

To the Editor of the London Medical Gazette.

SIR,
THE prevalence and fatality of puerperal fever render an investigation of its origin, nature, and treatment, a matter of the deepest interest to every medical practitioner. Many of our most enlightened and scientific writers have laboured with unremitting zeal in these inquiries, animated by the hope of discovering some means by which its dan-

ger might be removed, and its destructive agency arrested. The writings of Hey, Armstrong, and others, who have described this devastating scourge, throw much light on the subject, and point out a remedy sometimes efficacious in the *acute* form of puerperal fever; but the *subacute*, typhoid, and far more intractable species, will too often prove fatal, whatever method of treatment we adopt; and I think I have more than once seen its fatal termination accelerated by depletory measures carried to an excess, which the symptoms did not warrant, and which, without mitigating their violence, has irrecoverably exhausted the strength of the patient.

There is in medical theories a fashion, as well as in matters of less importance; and the opinions most orthodox, in our religious or pathological creeds, may possibly not be the most consistent with the canon of truth, or the legitimate deductions of right reason. It is easier to follow the dictates of ingenious enthusiasts, and to adopt their opinions, than to form our own:—we employ in the other professions learned and sagacious individuals to think for us, and pay them sometimes handsomely for rendering us this service; but although belonging to the laity of our own profession, we may claim the right of exercising our own judgment on the phenomena of disease, and should the notions we have derived from others be found irreconcilable with our own observation and experience, we are justified in rejecting them. It is orthodox in pathology to attribute all cases of puerperal fever to inflammation of the peritoneum, uterus, and pelvic viscera;—and in therapeutics, he who holds fast the faith, and follows the practice of the learned Sangrado, by taking away the largest possible quantity of blood in the smallest given time, is the most sound and orthodox practitioner: but I would ask any medical man, whether the symptoms manifested in the most incurable form of puerperal fever are such as denote an acute or a typhoid disease?—whether its contagious origin would induce him to expect a very high degree of vascular excitement?—and if we find the disease neither alleviated by active depletion, nor discover, after death, those changes which are the well-known and recognised effects of inflammatory action,—then we must conclude, that the dogmas

of the professor's chair, or the lubrications of his study, are not always entitled to our implicit faith, nor will our adherence to them, if contrary to truth and experience, enable us either to save our own reputation, or the lives of our patients.

Puerperal fever is distinguishable into two varieties; the *acute*, or inflammatory species, wherein the usual symptoms of increased action are present. It commences with a violent shivering fit; there is abdominal tenderness, pain, and tympanitic enlargement—commonly without delirium, and this can only be remedied by the early and free abstraction of blood, by local and general means, by the antiphlogistic plan of treatment promptly adopted; and the patient may thus not unfrequently be restored.

The other, or *subacute* form, often imperceptibly insidious in its origin—attended by little pain—without any distinct rigors, productive of great prostration of strength, a tympanitic state of the abdomen, diarrhoea, petechiæ on the skin, and very frequently fatal, especially if from excessive depletion the powers of the system have been much reduced. From this species of puerperal fever I was deprived some years ago of a near relative; the practitioner who attended, bled his patient copiously and repeatedly, to destroy the hydra of inflammation, and the result was as I have stated. I could detail many similar examples, and the English and foreign journals abound with cases which prove that puerperal fever, in its worst and most destructive form, is not rendered fatal in consequence of the high degree of inflammatory action excited, nor is it curable by the free abstraction of blood. Like typhus fever, it is unquestionably contagious to a certain extent, but is only capable of affecting women in whom the uterine system is rendered susceptible of its influence, in consequence of pregnancy or parturition.

CHARLES SEVERN.

Jewin-Street, June 18, 1831.

INFLATION IN ILEUS.

To the Editor of the London Medical Gazette.

SIR,

If you deem the following statement of a case of ileus worthy a place in your valuable journal, you will oblige me by giving it insertion. If, by inculcating the advantages of the remedy in question, it should in any way contribute to the alleviation of human suffering, the knowledge of this fact will be a source of gratification to your correspondent.

On receiving your No. for May 28, my attention was agreeably arrested by the case of Colica Constipata. It happened that I had at the time a very obstinate case of a similar nature, and having exhausted ineffectually such of the usual remedies as were admissible, I had recourse to inflation, which was followed by a happy result. I had been sent for to Mrs. W. æt. 38, about five or six days before,—a woman of delicate constitution, though in the general enjoying, what is termed, good health. When I saw her, she complained of a twisting pain in the right iliac and lumbar regions, not increased by pressure, nausea, and occasional vomiting of offensive porriaceous matter; her tongue was slightly furred; pulse 85, and soft; and the system generally depressed. The bowels had not acted for five days. I prescribed eight grains of the submurias hydrargyri, with one of opium, to be followed by doses of infus. senn. c. magnes. sulphat. These measures being of no avail, next day the submuriate of mercury was repeated, dose 10 grains, with the same quantity of the compound colocynth pill. Oleaginuous injections were prescribed, which succeeded in clearing the rectum of a very small portion of feculent matter, but produced not the slightest effect on that portion beyond it which formed the obstruction. The treatment was a little varied the two or three following days. More calomel was administered, and several doses of croton oil in pills, ten or twelve drops in all; frequent copious injections of warm water, from one to two quarts at a time; occasional friction of the abdomen, &c. Leeches were twice applied: fomentations and the warm bath all in vain; and from the dejected countenance, the sunken eye,

and the generally enfeebled state of the vital powers, I was I think justified in fearing that death would soon close the scene. It was at this crisis, having, as I before stated, taken the hint of its utility from Mr. King's paper, that I resolved on inflation. I followed the plan adopted by that gentleman; namely, by means of a common pair of bellows, a bladder, and clyster-pipe. The effect, as it regarded the ease of the patient from pain, was instantaneous; and I continued the inflation till the whole of the abdomen became somewhat tense. From this moment the nausea and vomiting, which had harassed the patient throughout, ceased entirely. The pain became diffused; she described it as very trifling, and altogether different from what it had been: the countenance, almost the facies Hippocratica, was already reanimating; the flickering flame of receding vitality was rekindling, and I was myself fully satisfied that the obstruction was moved. Considering, however, that there was probably an increased degree of torpidity in the lower bowels, having been deprived for eleven days of their accustomed stimulus, the fæces, I gave soon after the inflation a moderate dose of senna and salts, which was followed in about two hours by a copious scybalous dejection. All was now satisfactory; every symptom has been favourable since, and a simple gentle aperient, repeated at intervals as occasion required, is the whole of the subsequent treatment.

In the foregoing case, I do not consider that general bleeding was indicated, inasmuch as the system appeared peculiarly depressed from the commencement of my attendance. For the same reason I feared to use tobacco. If I may be allowed to give my testimony on the subject, I should unhesitatingly say that inflation is a most valuable mechanical means in cases of obstinate obstruction of the bowels unattended by palpable inflammation. Air being more subtle than the common fluids used as injections in such cases, will necessarily insinuate itself beyond the bounds to which these generally extend, and my own impression of the remedy is, that it is equally safe and efficacious.

I remain, sir,

Your very obedient servant,
CHARLES FLUDEB.

Lympington, Hants,
June 18, 1831.

ROYAL INSTITUTION,

Friday, June 10, 1831.

GEORGE MOORE, ESQ. F.S.A. VICE-PRESIDENT, IN THE CHAIR.

Mr. Faraday on the Arrangement assumed by Particles lying on Vibrating Surfaces.

If poets are born, not made, we are often inclined to believe that the same might be as truly said of lecturers also, and the old proverb thus be paraphrased, "Prælector nascitur non fit," *e.g.* Mr. Faraday, we opine, was born a lecturer; for whatever subject he undertakes to treat, whether it be familiar, or whether it be abstruse, it little matters—he renders it not only plain, but pleasing; all experiments are easy in his hands—all topics intelligible from his mouth.

The subject for this evening's illustration, though not unimportant, as elucidating an abstruse point in acoustics, was one as apparently barren of popular interest as any that could have been selected, and yet Mr. F. contrived to rivet the attention of a very numerous auditory, and to dismiss them gratified with the profit returned for the hour they had spent.

In several former reports we have noticed the acoustical experiments of Mr. Wheatstone, which have been brought forward at the Royal Institution by Mr. Faraday, in which the nodal lines existing in a state of rest in vibrating surfaces have been rendered ocularly visible by strewing sand over the plate, which of course quits the parts in motion, and collects on the parts at rest. But Savart, Chladni, and others, in pursuing these researches, found that if the powder sprinkled on the vibrating plate was of unequal densities, *e.g.* if the common sand had amongst it some scrapings of quill, dust of lycopodium, or other light matters, then, that although the heavy particles would collect on the lines of rest, the light formed heaps on the parts most violently in motion. This phenomenon excited much astonishment, and various (almost absurd) speculations were ventured by more than one experimentalist to account for such an apparent paradox. Mr. F. to whom the difficulty was mentioned, (although it is not a subject immediately connected with his chemical pursuits,) made several experiments,

and at last solved the problem, which has puzzled the *sound* philosophers. He has fully explained his views on this subject in a paper which has been read before the Royal Society, and will appear in the next number of their *Transactions*; therefore to it we shall refer for minuter details, contenting ourselves with stating, that the collection of the light particles on the vibrating points is owing to the currents of air which the vibrations of the plates occasion, setting from the nodal lines to the vibrating parts, thus separating the light from the heavy grains, and depositing the former on the points of chief motion. Proofs of this explanation being the true solution of the difficulty, were given in abundance, and the doctrines well illustrated by Mr. F. this evening. Of his numerous experiments, two were especially satisfactory:—First, that where small shields of paper were fixed to the sides of the vibrating plates, so as to intercept the aerial currents, when the *lycoperidium* dust remained on the nodal lines; and, secondly, when the vibrating plates covered with sand were immersed in water, so that the sand and the medium were of nearly similar relative densities (as previously the *lycoperidium* had been with regard to air),—then the sand was carried to the vibrating parts by the currents of water, just as the *lycoperidium* was shewn to be carried by the atmospheric current.

At the close of the lecture, Mr. F. in the name of the managers, took leave of the members and their friends in a short but very appropriate address, in which he referred to the success of the past as an incitement to greater exertions, to provide matter for the ensuing session.

In the library we noticed more than an average display of natural curiosities and works of art, from Messrs. Marshall, Bollaert, Johnson, Brunell, Newman, Bennett, and others; but the two things which excited the most marked attention were a very finely-executed bust, in marble, of Mr. Faraday, and a copy, by Pickersgill, jun. of the portrait of Sir H. Davy, by Lawrence, which hangs in the council-room of the Royal Society, and of which, by permission of the fellows, this copy has been made, to ornament the scene of his labours and his triumphs—the Royal Institution of Great Britain.

Meetings adjourned to January 1832.

MEDICO-BOTANICAL SOCIETY,

Tuesday, 14th June, 1831.

H. GIBBS, ESQ. TREASURER IN THE CHAIR.

Medicinal Plants mentioned by Shakspeare.

THE Secretary, Dr. Sigmond, continued the perusal of a very interesting paper, communicated by S. Rootsey, Esq. of Bristol, (begun at the last meeting) on the medicinal plants mentioned by Shakspeare; in which the author not only cleared up many doubts as to the identity of plants bearing the same and dissimilar names, but also indulged in several very curious etymological speculations as to the origin of their vulgar and classical appellations. This paper, in which there was displayed much labour, ingenuity, and research, was listened to with marked attention, and excited much general interest. At its conclusion, Mr. Bennett, a very industrious and scientific surgeon, who has lately returned from a voyage in the southern hemisphere, and has brought home many of the natural productions of New Holland, the Polynesian Isles, &c. &c. gave a particular account of the properties and uses of a plant used as a purgative in the Manillas, some seeds and fruit of which he presented to the Society: it appears to be one of the *combretaceæ* probably, as he observed a species of *quisqualis*.

If naval surgeons in general were endowed with such a love of natural history as animates Mr. Bennett, or would exert half the industry he has shewn in collecting specimens of the produce of different countries visited, how much might not in a short time be added to our stores of knowledge? Towards the close of the meeting, Dr. Whiting, professor of materia medica, delivered a lecture on the medicinal properties of *colchicum*, which contained some novel views, and much interesting matter for discussion, but of which space prevents us giving a detailed report.

The Society adjourned to Tuesday, 28th June, which will be the last meeting of the present session, when there will be read a paper from a Foreign correspondent on the indigenous medicinal plants of Egypt, and also a communication from Dr. Negri, on *Ergot* of Rye.

MEDICAL GAZETTE.

Saturday, June 25, 1831.

"*Licet omnibus, licet etiam mihi, dignitatem Artis Medicæ tueri; potestas modo veniendi in publicum est, dicendi periculum non recuso.*"—CICERO.

EPITOME OF THE SYMPTOMS AND TREATMENT OF CHOLERA.

AMID the alarm which prevails on the subject of cholera, it is quite extraordinary to find how little either the public or the profession seem to be acquainted with its nature and history. Crude opinions are promulgated—ridiculous suggestions are offered—and remedies which have been in use for the last ten years gravely adduced as novelties; while dogmatical condemnation is bestowed on others by those who not only have never seen the disease, but who shew by their remarks that they have not made themselves acquainted with the descriptions given of it by others. Under these circumstances, we have thought that a condensed account of the most important facts connected with the symptoms and treatment of cholera might be acceptable to our readers, and for this purpose, in addition to the published accounts, we have availed ourselves of access which has been afforded us to numerous original papers—especially to a large and valuable collection of reports from India, which has been made at the Army Medical Board. We have compared these with each other, and with the reports made by various authorities in Russia and Germany; and from these combined sources have formed the memoranda which follow.

We remarked some weeks ago, that the disease which then raged in the east of Russia had not been *proved* to be the same as the Indian cholera; and this assertion we grounded on the circumstance, that the details regarding its symptoms were extremely defective. It is remarkable, indeed, that this

meagreness of description pervades almost all the documents received by our Government, the narrators confining themselves to mere details of time and place, as to the breaking out of the malady, and to the rate of mortality. The report of Sir William Crichton forms an exception to this; and though it does not appear that he had himself witnessed the disease, yet as he took his description from the Russian practitioners, to whom it was familiar, no doubt can be entertained of his accuracy. Now, on the account given by this physician of the disease, as it prevailed in Moscow, being read to Dr. Russell, who had been familiar with the complaint in Calcutta, he instantly exclaimed that it was "an excellent description of the Indian cholera."

Admitting, then, the identity of the cholera which threatens us with that which for fifteen years has been the scourge of India, we can, of course, with more confidence turn to the experience acquired during this long period in our Eastern territories. But before entering upon any history of the symptoms of the complaint, we would remark upon the inapplicability of the name which has been bestowed upon it. A disease called cholera has long been familiar to us; it was known to the Greek physicians, and in England was first accurately described by Sydenham, as resembling the effects of a "violent surfeit," and occurring almost exclusively towards the end of summer. This is a disease of which we all have definite ideas as to its causes, its nature, and its treatment; it therefore becomes no inconsiderable source of confusion, if not of positive error, that the same appellation should have been applied to a pestilence having, it is true, some symptoms in common with the other, but differing from it in so many important particulars, as clearly to prove them to be essentially distinct.

Probably the attempt to alter the name would now be in vain ; at the same time it is proper to keep the distinction in mind, both because the public, confounding our common summer attacks of bilious vomiting with the more fatal disease, might otherwise be alarmed beyond all reasonable measure : and also because medical men themselves, if they expected to find the disease which now absorbs so much anxious attention the same as the " cholera " to which they have been accustomed, might be led into serious, or even fatal mistakes. Indeed, in a French paper*, which has reached us at the moment we are writing the present article, we find cholera announced at one of the hospitals ; which, though the appellation be sanctioned by M. Andral, we hesitate not to pronounce to be merely the common biliary disturbance, with which London and Paris abound during the heats of summer. Keeping in mind the distinction above alluded to, and setting aside anomalous symptoms, such as are sometimes, but not frequently, met with, the following may be taken as an epitome of the disease which has travelled from the banks of the Ganges to the shores of the Baltic.

A town or camp may be in a state of excellent health, when suddenly, and in many instances without any cause which can be detected, an individual becomes affected with cholera. Within three or four days perhaps fifty cases may be brought to the hospital, of a single regiment—so rapidly does it spread. The attack generally comes on between sun-set and sunrise—comparatively seldom, at least, during the day. At the time the greater number of patients are first seen, the most conspicuous symptoms are lowness and depression, often with giddiness, quickly passing into faintness and extreme anxiety. The surface soon begins to grow cold, and the skin clammy,

while the pulse flags, becoming so small as to be felt with difficulty, or perhaps not to be felt at all. The rapidity with which these symptoms of overwhelming sinking and collapse supervene, constitutes the striking and characteristic part of the disease ; and patients occasionally die in this stage without any vomiting, purging, or cramps. More generally, however, there is a sense of heat and oppression at the stomach, with great and insatiable thirst ; this is attended by vomiting, especially after drinking ; and the vomiting generally brings on spasms, which commence in the extremities, perhaps in the toes or fingers, and spread towards the trunk. Purging is also an usual attendant of the complaint simultaneously with the vomiting, the evacuations being ejected with force, but generally without griping. The skin loses its natural elasticity, assumes a sodden appearance, and is bathed in profuse cold sweats. The matters ejected, both upwards and downwards, are for the most part free from all appearance of bile, being watery, clear, and even white, (by many compared to rice-water), and with a peculiar odour said to be characteristic of the disease. Some, with a view of describing the smell, call it " heavy," and others " sickly."

The burning sensation at the stomach, with unquenchable thirst, vomiting, purging, and cramps ; the exhaustion, sinking, and restlessness, with shrivelled extremities, sunken eye, cold skin, blueness of the lips, oppressed breathing, and cessation of the pulse, or even of any perceptible action of the heart—continue for a period, which varies from one to many hours ; during which, however, the mental faculties generally remain unimpaired. In many there is a disposition to dose or become lethargic—a state from which the patient is only roused by the attacks of vomiting and spasm. A temporary respite frequently takes place for an interval before death ;

* *Gazette des Hopitaux.*

the soul, if we may so express ourselves, seeming to linger in the body for a few moments after the functions of life have ceased.

The favourable or unfavourable symptoms are chiefly to be looked for in the state of the pulse and skin: in fact, the danger might almost be said to be directly in proportion to the diminution of temperature. When the skin retains its natural heat, or having been cold, resumes its warmth—and when the pulse continues tolerably firm, shewing that the circulation is performed with a certain degree of power—recovery may reasonably be anticipated. On the other hand, the worst is to be feared so long as the surface continues cold. In some cases, the thermometer, even under the tongue, or in the axilla, does not rise above ninety degrees, being a diminution of seven or eight degrees! Judging from the evidence of many reports which we have consulted, we should say that the danger has a much more obvious relation to the state of the circulation and heat of the body, than to the vomiting, purging, or cramps. In fact, many of the phenomena resemble those of asphyxia. The appearance of bile in the evacuations is a favourable omen, and is generally followed by a return of the other secretions: of urine, for example, and of saliva, which are for the most part completely locked up during the height of the attack.

The rapidity with which the disease runs its course varies considerably. Dr. Daun, in a most intelligent report, mentions the cases of a soldier and his wife, both of them robust Europeans, who were carried off the same morning—the former in little more than an hour, and the latter in less than two hours, from the commencement of the symptoms. In other instances, several days elapse before death. Often the convalescence takes place with extraordinary rapidity: a patient may

be in the very extremity of exhaustion one day, and nearly well the next.

When the bodies of those who die are examined, the chief appearances which have been met with, both in Asia and Europe, are a loaded, congested, and, we might say, gorged state of the internal viscera, especially those of the chest, together with preternatural injection of the vessels of the stomach and small intestines. That this last sometimes amounts to inflammation, is proved by the presence of small superficial ulcerations in those who survive long enough for organic changes to occur. The mucous membrane of the stomach is also sometimes thrown into rugæ, and softened, so that it tears if rubbed with but a moderate degree of force. The stomach in general contains a quantity of starchy or glairy fluid—sometimes even of coagulable lymph. The gall-bladder is distended with bile in a manner so remarkable as to have attracted the notice of most persons who have made examinations; while the urinary bladder is as uniformly empty, and shrivelled; the colon is frequently very much contracted, resembling a cord.

Certain other morbid changes are discoverable before death. If blood be drawn, it is found to be unusually dark—some describe it as “jet black:” and that taken from an artery, instead of its proper vermilion, is often darker than the usual modena hue of venous blood. Corresponding with this, it was found, more than ten years ago, by Dr. Davy, (brother of the late distinguished Sir Humphry), that the air did not undergo the usual change in respiration—was not converted into carbonic acid, and consequently did not free the blood from its superabundant carbon. Only from one-fourth to one-third of the usual quantity of carbonic acid was found in the air expired by those labouring under cholera. Similar observations have subsequently been made by others;

and thus it appears that one of the most striking phenomena of the disease consists in the imperfect arterialization of the blood. It has recently been affirmed by Dr. Walker, a physician at St. Petersburg, who was employed to send information to our Government, that free acetic acid exists in the blood of those labouring under this disease. Should future inquiry confirm this statement, it will afford a curious illustration of the views of Dr. Stevens, who remarks, that in the malignant fevers of the West Indies, the whole mass of blood, both in the arteries and veins, becomes of a black colour; and, farther, that this effect may at any time be produced by mixing acids with fluid blood*. It is also worthy of remark, that Dr. Prout has expressed his belief that *black vomit* contains acetic acid, while he has demonstrated its presence in the copious perspirations which attend some forms of fever.

With regard to the treatment, nothing can be conceived more perplexing or contradictory than the statements which have been made with regard to the effects of remedies; but by looking to the facts, rather than the opinions of the narrators—examining them dispassionately, and submitting them to the test of common sense, much of the apparent confusion may be removed. It is on this plan that we have endeavoured to estimate the different methods of treatment, and the results we subjoin—but with the greatest deference, and as open to correction.

Bloodletting is mentioned in terms of unbounded commendation by some, and of unmeasured censure by others. It appears to us that it is useful, or otherwise, according to the circumstances under which it is adopted, and those circumstances are just such as we

should, *a priori*, have expected. Thus it appears, that in India bleeding was practised, or attempted, in many instances without any reference to the state of pulse or heat of surface; and, in fact, quite indiscriminately. Under these circumstances it was that the greatest mortality occurred; and the only thing which seems to have saved any of the patients was, that the blood in most instances flowed but in very small quantity, and sometimes did not flow at all. A recent, and very intelligent writer, (Dr. Mouat, Calcutta, 1829) alluding to the state of collapse, says, “in no instance, with any of the above symptoms, however slight, or however early in the disease, did the flow of blood either rouse the system, induce reaction, or relieve the complaint.”

But if bloodletting be thus injurious when attempted under the existence of collapse, to us it appears no less satisfactorily made out, that there is in most cases of cholera a stage during which this remedy proves of the most marked and unequivocal service. Before the extreme depression comes on, there is a time—unfortunately very short, and, from the absence of urgent symptoms, not calculated to attract sufficiently the notice of the patient—during which the pulse retains its vigour, becoming small perhaps, but being strong, or even hard, and without diminished heat of surface. When these symptoms are met with, in addition to burning heat at stomach and anxiety of countenance, the evidence of free venesection, contained in the papers we have examined, is to our minds conclusive. In one regiment (the 14th), of 219 cases thus treated, only 41 had died, 58 still remaining under treatment when the report was drawn up; in another (69th), of 70 cases, 10 died; in a third (65th), of 290 cases, 250 were bled, and only 5 died; of the remaining 40, who were not bled, 24 died! Now

* See Medical Gazette, vol. vi. page 172.

when these and similar statements are considered, even after we have made allowance for the probability of a certain number of cases of bilious vomiting and purging being included, and admitting also that the returns may have been made at a time when the disease was on the decline, still there remains a sufficient number of cases to prove the efficacy of bleeding on the very onset of cholera; nor is it possible to get over this in any other way than by denying altogether the truth of the reports, which, considering the circumstances, there is no reason to do. Sir W. Crichton states, that the Russian practitioners had generally concurred in recommending bleeding "at the commencement;" and we also find that the Committee of Health at Warsaw state expressly in their report, that bleeding, practised in time, has been attended with "very great success." The preceding observations apply equally to local bleeding, which bears the same relation to venesection as under ordinary circumstances:—it is inferior in efficacy, and inferior in danger.

Calomel has generally been given in doses of a scruple, and repeated perhaps several times. Where the disease was in its infancy, and bleeding indicated, the calomel seems to have co-operated with it in equalizing the circulation, and to have checked the vomiting. At a later period, it is doubtful whether it was of any service: it often produced copious ptyalism. There seems to us no evidence of calomel in very large doses being more serviceable than in the more moderate quantities we are accustomed to use in this country.

Opium, in the great majority of cases, was given either with the calomel, or soon after it. The doses used were often very large, beginning perhaps with a hundred drops of laudanum, and this frequently repeated: the injunction of some, and the practice of most, seems to have been, to be guided, not by the

quantity, but by the effect. There appears to us nothing in the reports which can warrant much confidence in opium, and although it is probable that it frequently did good in contributing to allay the vomiting and spasms, yet the proofs of its having occasionally been injurious, when exhibited in very large doses, are more unequivocal, its pernicious effects being manifested by an increased disposition to a lethargic or apoplectic condition. Opiate clysters were frequently of use.

Diffusible stimuli, of course, have been generally, if not universally, had recourse to during the period of collapse. Of these, æther, ammonia, and brandy, are the chief. All of them have been fully tried, but the most favourable opinions are those expressed with regard to the last. They have been repeated every hour, half hour, or at shorter intervals, during the period of sinking, there being no hope till this state be arrested, and their effect, where they have any, seems to be that of keeping the patient alive till the system has an opportunity of rallying against the disease. Among the stimulants may be mentioned Cayenne pepper, a scruple of which, in hot brandy and water, was sometimes found to remain on the stomach, where every thing else was instantly vomited. When reaction sets in, it sometimes runs so high as to require depletion to reduce it.

Magnesia.—This medicine seems to have considerable effect in checking the vomiting; but we have not been able to discover satisfactory evidence of it having any effect over the disease, except in so far as mitigating one of the distressing symptoms, may contribute to diminish its general severity. It has been given in doses of a tea-spoonful, frequently repeated. The alkalies have also been used; but none of them is particularly remarked upon except the ammonia.

Drinks.—As great thirst is one of the

most uniform of the symptoms, so the patients are of course urgent in their entreaties for its relief. Almost every one of the Anglo-Indian practitioners are peremptory in their prohibition of fluids, except in very moderate quantity. The drinks chiefly used have been barley-water, or some such bland and mucilaginous beverage; but many recommend merely moistening and rinsing the mouth with some acidulated water, or with lemon-juice: occasionally weak ginger-tea has been tried, and it is favourably spoken of by those who have used it. We do not, think, however, that the facts fully bear out the decided manner in which the prohibition of fluids is made. Of those not relieved by bleeding in the early stage, more than one in two died even where the abstinence from fluids was most rigidly enforced; and, consequently, the withholding liquids had no very obvious effect in reducing the rate of mortality. Again, it is contrary to the general principles of therapeutics to withhold what nature seems so urgently to require; and, in keeping with this, is the account of the Russian practice, as given by Sir William Crichton: warm "drinks" are mentioned among the remedies which proved most efficacious. This part of the question—namely, the extent to which fluids ought to be withheld, is one on which farther evidence is required.

Warm applications, externally, are essential adjuvants to the internal stimulants, and for this purpose bottles of hot water, hot bricks, flannels, and similar contrivances, have been adopted. The warm bath is favourably spoken of by some, but seems on the whole not to have been so serviceable as might have been expected. The hot spirituous vapour-bath being more easily applied, and keeping up more permanently the heat of surface, seems more entitled to confidence.

Irritants of various kinds have been applied externally, and blisters to the stomach, spine, and thighs, are severally commended. The first was most general, and inasmuch as time did not serve for the operation of cantharides, vesication was usually produced by dipping a piece of flannel in boiling water, and laying it on the part. Mustard poultices and stimulating frictions were also of service in fulfilling the same indications.

Stimulating the Lungs.—The imperfect manner in which the lungs perform their functions in this disease, and the consequent deficient arterialization of the blood, led Dr. Davy, many years ago, to suggest the idea of stimulating them by irritating vapours and by galvanism. Ammonia was volatalized by heat so as to impregnate the atmosphere of the room with its fumes; and the late Mr. Finlayson states, that two out of three in whom this practice was adopted, recovered. In two patients who were moribund, a galvanic current from a small battery was passed through the chest: in one, the pulse instantly rose, and he recovered: in the other, no effect resulted. These experiments, however, are on a scale too limited to admit of any inference being drawn from them, except that they deserve farther trial.

Fumigations.—As the Committee of English Physicians have declared their belief that the disease is infectious, it is to be supposed that fumigations will be employed. So far, however, as experience has yet gone, it is entirely against the efficacy of those agents which are most powerful in destroying the deleterious influence of effluvia accompanied by smell. Thus Dr. Albers, who was sent to Moscow by the Prussian Government, states, in his report, that fumigations of vinegar and chlorine were fully tried, but proved perfectly unavailing; while the latter,

if used in excess, frequently appeared to be injurious. "At the time (says he) that the Cholera Hospital was filled with clouds of chlorine, then it was that the greatest number of the attendants were attacked;" and he adds, that the number greatly diminished when free ventilation alone was had recourse to. It is also stated by Sir William Crichton, that fumigations with chlorine have been generally employed in Russia, but that experience has not proved any thing decidedly in their favour.

Upon the whole, it appears that the disease in India, as well as in Europe, has committed by far its greatest ravages among the poor—those who are ill-fed, exposed to the weather, and badly lodged. In India the followers of the camps always suffered most; next the native troops; then the European soldiers; after them the officers; and last in the scale of frequency came the civilians; the order being precisely that of their exposure to atmospheric vicissitudes, to fatigue, and to privations. Children are much less subject to it than adults. The same circumstances have been observed in Europe; the troops of the contending armies in Poland have chiefly been its victims; while at Warsaw it is expressly stated, by the Committee of Health, to have attacked but few in good circumstances, being chiefly confined to the low and crowded part of the town which borders on the Vistula. At Riga its ravages have been great; but the circumstances were peculiarly favourable for the development of any disease—we allude to the great number of sailors of every country, and of the most dissipated habits, who at this season are congregated there to take advantage of the breaking-up of the ice. An immense number of the unfortunate patients both there and in other parts of Russia must have been left to die without any medi-

cal assistance. With our poor better fed—our houses better ventilated; and we may be excused for adding, with our medical men better educated, and more capable of turning every indication to account, we may reasonably hope that, should it please Providence to visit our shores with this malady, it will be robbed of much of its fatality; and its duration, which fortunately is never long in any one place, still farther shortened by judicious measures of precaution.

We have thus presented our readers with a sketch of the principal circumstances connected with cholera; and as we have been compelled to write *currente calamo*, we have to intreat their indulgence. We shall endeavour to supply our omissions by communicating, from time to time, whatever information we may obtain upon this interesting subject.

DESCRIPTION OF THE CHOLERA IN RUSSIA.

SINCE the above was written we have procured Sir W. Crichton's account of the disease, which we subjoin:—

"General uneasiness; violent headache and giddiness; great languor; oppression at the chest; pain at the pit of the stomach and sides; a very weak pulse and frequent vomiting, first of undigested food, and then of a watery fluid mixed with phlegm; frequent purging; severe pains; cessation, or very scanty secretion, of urine; excessive thirst; cramps in the legs, beginning at the toes, and by degrees reaching the body; voice feeble and hoarse; eyes dull, and sunk in the head; the features changed and like those of a corpse; coldness, contraction, and blueish tinge of extremities; coldness over the whole body, the lips and tongue becoming blue; cold and clammy perspiration. The vomiting and purging soon exhaust the patient; the spasms become greater, attacking the most vital parts; the pulse ceases; the beating of the heart becomes scarcely sensible; and the patient, after suffering the most

horrid martyrdom, dies quietly, having a few moments ease just before his end. The duration of this malsady is generally from twenty-four to twenty-eight hours; but sometimes its course is still more rapid."

BOARD OF HEALTH.

By order of Government, a Board of Health has been established, to take into consideration, and to devise the best means of managing, or preventing, if possible, the ingress of cholera into this country. The sittings of the Board to be held at the College of Physicians, Pall-Mall. The following is a list of the members:—

SIR HENRY HALFORD, President.
 DRS. HOLLAND, MATON, TURNER,
 WARREN, and MACMICHAEL.
 SIR BYAM MARTIN, Comptroller of
 the Navy.
 HON. EDWARD STEWART, Deputy
 Chairman, Board of Customs.
 SIR JAMES MAC GRIGOR, Director
 General, Army Hospital.
 SIR WILLIAM BURNET, Commis-
 sioner, Victualling Office.
 SIR WILLIAM PYM.
 DR. SEYMOUR, to act as Secretary.

ST. THOMAS'S HOSPITAL.

CLINICAL LECTURE,

DELIVERED BY DR. ELLIOTSON,

March 31, 1831.

(Concluded from page 382.)

Hay-Fever—Information solicited.

WHILE speaking on these two very extraordinary cases, gentlemen, I beg to request a favour from you, and that is, to give me, if you can procure it from your medical friends, any information respecting a very extraordinary disease which I have once only had to treat; but another case was related to me the other day, the particulars of which have been given me: it is what is called *hay-fever*. This is the time of year

at which it is coming on, and it is a disease that appears not to be understood. I do not know how to collect information, for I never was applied to but once respecting it; and though I was perfectly successful in the treatment, yet it may be many years before I have other cases, whereas I know that a great many instances of it exist.

This peculiar disease is marked by its recurrence at the beginning of the summer—about May and June, and it continues for a great part of the summer. The symptoms are redness, heat, pricking, running of the eyes, discharge from the nose, itching of the ears, cough, pricking about the throat, and copious expectoration; and in some people, in addition to all this, a great constriction of the chest, just like a fit of asthma—in fact, asthma. This disease I never read of till I perused an account in the *Medico-Chirurgical Transactions*, by Dr. Bostock.

Dr. Bostock, it appears, has this disease, and has been subject to it for many years. He describes his own symptoms, but he mentions that they have varied very frequently. I believe in some people there is only a running at the nose and expectoration; in others there is great irritation of the eyes: in others downright asthma, a sensation as if they were going to die—true spasmodic asthma. Seven or eight years ago I was told of such a disease by a lady, but I could not tell what she meant, till a gentleman came to me, and told me he himself had the disease, and called it hay-fever. I confessed to him I did not know what to advise him to do; that I had neither read of, nor met with such a case, and that I knew nothing about it. I begged him, therefore, to consult some one else. It so happened that he was one of a family which I attended last year, and though I had heard no more about it, it struck me, in the meantime, that something might be done for him. I begged him to make an experiment to satisfy me, and he promised to do so. He made the trial, and it was attended with perfect success.

Now I am very anxious to collect facts respecting this disease, and I do not know how to procure them unless my medical brethren will supply me with them. Dr. Bostock does not believe that it depends upon the grass: he thinks in his own case it certainly does not. I believe certainly that it does not depend upon the hay, and therefore ought not to be called hay-fever, but upon the *flower* of the grass, and probably upon the pollen. It appears that it does not take place till the grass comes to flower; and as long as there is any flower remaining in the grass, the disease continues. Dr. Bostock considers that it does not arise from this, because he has gone to the sea-side, where there was no grass, and yet the disease has continued more or less. He says he has been to the Isle of Thanet. I am not

intimately acquainted with the Isle of Thanet, though I have often been there, but I have seen plenty of grass in it. Dr. Bostock mentions that he was there one year when there was no grass, for the sun was so intensely hot as to dry it all up, and therefore there could be no flower. However, I can conceive that a minute quantity of the emanation from the flower of grass is sufficient to produce it—so minute that you can be in few parts of the country at all without the chance of its reaching you through the atmosphere, emanating from some grass or hay. I know that in London, during September and October, grass is growing and flowering between the stones;—in fact, in my own street, Grafton-street, I have frequently seen it growing in the autumn, and therefore I conceive there might still be grass enough in most parts to produce it. Dr. Bostock mentions, as another argument, that he was at Kew one summer, where there was a great deal of grass growing, but he did not then have the affection severely. He mentions, however, that it was a cold season, and in cold seasons you are aware that exhalations do not take place to anything like the extent that they do in hot seasons. That I think would account for the difference. But what makes me believe that it does depend upon the flower is, that a lady has lately given me an account of her own case, in which the symptoms appear, and gradually increase as the grass comes more and more into flower, till at last they arrive at such intensity that she is obliged to leave home, and go to the sea-side, and she is always relieved by shutting herself up in a room. On one occasion she was where she thought there could be no grass near, but she was suddenly seized with the disease, when, on looking out of the window, she saw in a yard of the inn two stacks of hay being put up, which had been just brought from a considerable distance. On another occasion she was free from it, when some children came into the room, and she was suddenly seized with it. On inquiry she found they had been playing among the new-made hay. She mentioned so many things of this kind that I cannot doubt it. She also said that in a cold day, when the weather was absolutely cold, this all declined; but just in proportion to her exposure to grass in flower, and in proportion to the heat of the weather, and the quantity of flower in the grass, so did she suffer. She likewise mentioned that in handling the flower of grass, or handling hay, her hands became instantly inflamed; and therefore there is clearly in her a peculiar susceptibility to the impression of this particular substance. I presume that there is a morbid excitement of skin, and of the mucous membrane of the mouth, nose, and whole air-passages, producing, not only uneasiness and copious secretion, but in some,

just as we see in common asthma, a spasmodic contraction of the bronchial fibres described by Reisseisen as muscular.

It would appear to run in families, for this lady, notwithstanding none of her children had it, nor her husband, though they were in the same house, has a cousin affected with it, and an uncle, and they both begin to be affected with it at the same time that she does, yet they live in different counties, and one of them is obliged to leave his estate, and come up to town, or go to the sea-side, and shut himself up. Dr. Bostock mentions that it is confined to the higher ranks. I am told that some of the nobility of the very highest order have it. A lady told me the other day that a friend and acquaintance of her's—a duke, has it. Every body says that another duke, and they say even still higher personages than these, suffer from it. This lady, however, says that she is satisfied she knows ten instances of it among the lower orders who suffer from it. She mentioned to me several in Essex. Dr. Bostock considers that if it were common among the lower orders, we should know it. But that would not be the case unless attention were drawn to it. If a person seem to be labouring under a catarrh, he in general does not apply to a medical man, or if he does, you go on treating it perhaps for some weeks, without being struck with any peculiarity in it, and do not connect it with a particular season of the year unless you are told that the patient has had it, year after year, at a particular time. Poor people are not communicative on these points; you have great difficulty in getting any account from them; and you cannot expect them to distinguish this form of catarrh from others which they have continually.

I must mention, however, as it occurs so much among the higher orders, lest it appear that I am going to make a mystery, the treatment which succeeded. It struck me, that as emanations of another kind are destroyed by the chlorides, that this emanation from grass, being undoubtedly a chemical compound, might be destroyed too. Of course it is a compound of a few elements, just like other vegetable and animal poisons; and as we can destroy the combination which produces stench in putrefaction, and as we can destroy the combination which produces contagions—at least so it is said, I thought these emanations also might be destroyed, and I therefore requested the gentleman to wash his eyes, ears, nose, and mouth, with a solution of one of the chlorides every morning as soon as he woke; to sniff up his nostrils a solution properly diluted to such a degree that he would not be irritated by it; to wash his mouth, and to gargle with it; to have saucers, with the chlorides, put on chairs round his bed; and when he went out

of doors to have a phial of it to sniff at as he walked along, the same as smelling-salts, though the latter was not done: this succeeded perfectly, and he said that he got through the summer in a state of perfect comfort. He persevered with it; he had his bed-room thoroughly impregnated with it, and applied it externally in the way I have mentioned. The autumn came, and he had no attack. It was only, however, in the spring that he suffered severely; but he had suffered, more or less, always in the autumn.

Dr. Bostock says that he has tried medicines of all descriptions without any good effect, and the only thing he could do was to go to the sea-side, and shut himself up. He also says that some persons have found great benefit from washing their eyes and face with tincture of opium. Still, although I employed the chloride with a view of decomposing something, it is possible that it operated by lessening the sensibility of the part; it is possible, and therefore I do not consider that the nature of the disease is proved to arise from such an emanation as I imagine, by the success of this remedy. It is to be remembered, also, that this remedy was only employed in one case. I shall therefore esteem it a particular favour if gentlemen will procure me information, so as to not only shew whether the disease arises from an emanation or not, but whether the treatment which I found successful is likely to be generally so. I once heard a paper read at the College of Physicians relative to a lady who was seized in this way whenever she approached a field of sweet scented grass. I do not know what sort of grass produces hay-fever, but this would make it appear that it arises from an emanation, for whenever the lady approached a field where there was the flower of sweet scented grass, she was seized in this way. I asked a medical friend some questions upon the subject, and he told me a still more curious case, for he had made the observation again and again, till he had quite satisfied himself of it, and that was a case in which such symptoms were produced by an emanation from a rabbit. The perspiration, I presume, of a rabbit had such an effect upon a lady he was acquainted with, that it produced a running of the nose, a running of the eyes, and a soreness of the upper lip. If she went to a field where there were rabbits, this instantly came on, or if her husband shot a rabbit, and brought it home, and accidentally threw it down near her, these effects were also instantly produced. This I believe, for the physician, whom you all know, quite satisfied himself of the truth of the case,—that it was no fancy on the part of the lady; and therefore you may see a reason why some persons cannot bear a cat, and

some a sucking pig. When I have collected more facts of this, and some other idiosyncrasies, I will present them to the public.

Concluding Address.

I have now, gentlemen, given clinical lectures for six months—from the beginning of October to the last day of March, and therefore I trust you will consider I have done my duty, and borne my share of clinical instruction. I am quite aware of the defects of the information I have given you. I say this, not from affectation, but because I am conscious of its truth. I have never finished a clinical lecture without regretting that I had not said more on particular points than I have done. You will, however, remember that although these are the clinical lectures, they do not form the whole of the clinical instruction that is given; for in going round we have, if not a clinical lecture, a clinical chit-chat; and that if in Edinburgh they give two clinical lectures a week respecting a small number of cases, whereas I give but one clinical lecture respecting a large number, yet the balance of the amount of instruction given is not against us; for I believe that in Edinburgh they have no such conversation as we have in going round. The professors *there* trust much to the clinical lectures, *here* we do not; but, in going round, Dr. Roots and myself spend several hours, and every gentleman has an opportunity of seeing a case when we see it ourselves. I know that when I attended in Edinburgh, I frequently could not get near a quarter of the patients, in consequence of the crowded state of the wards, and was obliged often to be satisfied with standing at a distance and hearing the report. Many of us saw only a few patients. On this account, in Edinburgh they are under the necessity of giving two clinical lectures in a week, on a smaller number of cases. We have more conversation in going round, and more instruction is thus imparted than in our lecture; therefore I hope you will excuse the circumstance of there being but one lecture in a week.

In finishing these lectures, I feel that I am called upon most cordially to thank you for the attention you have given me, and for bearing with me. I have not been punctual to my time—which I assure you I consider a misfortune—on account of the early hour at which I am compelled to lecture interfering so much with my other engagements; so that I was under the necessity of detaining you whether I would or no. I have more particularly to thank you for your great attention in attending these lectures, when I consider that that attention has been voluntary on your part. It is not a matter of compulsion from the College of Surgeons, or the Society of Apothecaries, that you attend; they only recommend that you should do so; and therefore I feel the more

gratified and honoured by the kind and marked attention you have shewn me. There was a time when no clinical lectures were given in London, and when I began, three years ago, eight, ten, or twelve, was the largest number of pupils that ever came.

The instruction which was given in medicine was certainly altogether deplorable at one time, in London; and I am sure that every thing was rather calculated to disgust pupils with physic than to satisfy them. There were not the same means of diagnosis formerly that we now possess; and when a diagnosis cannot be established, you cannot take much interest in the case—and for this simple reason, you cannot see your way. Whatever treatment is adopted cannot interest you, because you cannot see why it is adopted, or be sure that there is reason in it. Such treatment, too, is generally inefficient, because, as you have not made a diagnosis of the case, you are floundering about, fancying one thing to-day and another to-morrow, and such treatment must disgust a pupil rather than excite his attention. With too many, physic is a mere guess; and they affect to sneer at those who bestow the time and employ the means requisite for making such a diagnosis as you know to be possible. I conceive that one of the greatest improvements in modern physic is the great facility of diagnosis. Certainly far more has been done with respect to diseases of the chest than I expected could ever be accomplished; and I think that a great deal has been done, and very soon much more will be done, respecting the diagnosis of diseases of the head, and that we shall, after a time, know pretty accurately what parts of the nervous system are affected in its various diseases. Respecting diseases of the abdomen, for the most part our diagnosis is pretty perfect. If persons will condescend to examine the abdomen both with the hand and eye, connecting the evidence of these senses with the general symptoms, a very accurate diagnosis may in general be made. Some sneer at those who condescend to use what they call mechanical means—nature's senses of hearing and touch, in diagnosis. But let us employ with thankfulness all the means in our power.

In the treatment of disease, you will find the first thing always to be to make an accurate diagnosis. It is no matter whether the diagnosis will lead you to a cure of the case or not; the point is, as a general and invariable rule, to make an accurate diagnosis. If it will enable you to cure the disease, so much the better; if it will not, still you see your way to relieve it a great deal better, or you learn the inutility of particular plans of treatment: and it is to be remembered, that if we make an accurate diagnosis, our successors, perhaps, will be able to advance further—to turn the diagno-

sis to account; but as long as we are unable to distinguish diseases, we cannot expect much satisfaction in the treatment. Among the improvements of our profession, this must be considered as one of the foundations, and future generations will be able to profit by the improved diagnosis which we have established.

But with respect to diagnosis, it is also necessary to make it as to the variety of the disease. It is not sufficient to ascertain where a disease is situated, and what it is, but you must ascertain what particular form and variety it has assumed; for the very same disease will sometimes be attended by inflammation and with strength, and sometimes there will be no inflammation, and it will be attended by weakness. For example, in small-pox; you may make the diagnosis of small-pox easily enough, but when you have done that, you have to ascertain what is the strength of the patient, what the local symptoms that present themselves; whether there is inflammation in the larynx, inflammation in the chest, inflammation in the abdomen, &c. After the general diagnosis as to the kind of the disease, you have to make a very minute one respecting its variety, and all the accidental circumstances connected with it. You cannot take too much pains on these points. I have often been laughed at for spending so much time in inquiring into a case that I cannot cure after all. Well, suppose I cannot—suppose that the accuracy of the diagnosis will only lead me to know that the patient has an incurable affection—still it is something to know that you cannot cure a complaint; it saves the patient a great deal of useless torment, and yourself a great deal of trouble in making useless attempts. As I said before, the more accurate we are in establishing diagnosis, the easier will it be for posterity to treat diseases successfully.

But in the treatment of disease, and the employment of remedies, there are two things which I am very anxious to impress upon you. After you have ascertained the nature of the disease, and the indication of treatment, the next thing is to use the means properly which are indicated. Now I believe that in acute diseases our great fault is want of activity; and in chronic diseases our great fault is want of perseverance. When we are quite sure of the treatment that ought to be adopted in an acute disease, we may fail from not having courage to put it properly into effect. I am quite satisfied that there are far more patients lost in acute diseases from the want of activity than the excess of it. You find persons who are willing to slay over their business, say they do not do this, that, or the other, lest they should do harm; but the fact is, they will not take the trouble to use, or suffer the anxiety of using, vigorous means where the

employment of them is justified. It does not follow that because a man is energetic he is to be rash. It does not follow that, because you ought to bleed a patient freely, you are to bleed him till you kill him; it does not follow that because you wish to open the bowels you are to scour a person out, and reduce him to the last extremity. No person should determine to employ free bleeding, or to give any strong medicine, till he has weighed two things—the danger of the disease on the one hand, and the powers of the patient on the other. If you have ascertained these points carefully, and satisfied your own mind how far you may proceed, then you should employ the means vigorously, and watch the effect of your means. I have never regretted having been too active in acute diseases, but I will own to you that very often, when I have failed in their treatment, I have blamed myself for not being more energetic. I have, in my life, frequently lost a patient with inflammation, from saying I will try to cure him without mercury; I will trust to bleeding; and by saying, I will not bleed again till to-morrow, because he may be better by that time. Many people say this is all nonsense, but I have seen it; I have done so, and frequently repented it; whereas I never regretted being active. Frequently I have done injury by trying to spare a patient another bleeding, or a few doses of mercury. My judgment has led me to say he ought to be bled, yet my fears and my fancies have come over me, and I have said, no, I will not be active till there is imperious necessity. This is a thing that happens to all of us, and of which I have repented; but I have never repented of the reverse, because I never think of prescribing energetically unless I have first carefully weighed all the circumstances. Many medicines, in acute diseases, are given most inefficiently on this account. But in chronic diseases the cause of failure is in the want of perseverance. When, in chronic diseases, you have made up your mind as to what remedy is most calculated to do good—not that it *will* do good, because you cannot say that beforehand, but what remedy is calculated to do good, what is the best you can employ—then persevere; do not change it to-day for this, and to-morrow for that, and then go back again, and then exchange it for something else, and go back two or three times. This is a sort of old woman's treatment, which reminds me of a lady with a dish before her that requires nothing but that its contents be distributed with a spoon, and cannot make up her mind which morsels to give when serving each guest, and turns them over and over before she puts them in the plates; she cannot make up her mind whether she shall give you this piece or the other. I have been out of all patience, whereas, at first, I

should have been perfectly satisfied with any thing that was given me. I have often thought of this when I have seen such a shilly-shally sort of practice. When we treat syphilis we do not practise thus; we know that mercury is the best remedy, and make up our minds to administer it, and keep the patient's mouth sore. So again after the operation of amputation: when the part is put up, a surgeon does not open it and pull away the strapping to see if it be going on well—taking a little plaister off there, and putting a little on here: but in medicine, unfortunately, a great many practitioners act in this fiddling, old womanish way, and nothing is more disgusting. But although you have made up your mind to persevere, yet a certain time ought to be allowed; and when you know from experience that sufficient time has elapsed, and yet the thing will do no good, then persevere in it no longer—then change it for something else, but not before.

Again, with respect to *doses* of medicine. There is no dose which is always required. There are many medicines given in an inefficient manner as to quantity. Many give them inefficiently as to time, not continuing them long enough; but others give them inefficiently as to quantity. We are told that such a thing has been tried, but it did no good; but we are not told how long it was tried, or how great the quantity. Every body knows, in chronic inflammation for example, how you have to apply leeches over and over again. In the knee or hip-joint complaint, you have to go on with leeches and blisters; but if a person only employed them two or three days, and then said they did no good, would you consider that an argument against them? You would rather say, go on, and persevere till good is done. So it is with medicines. Many persons will give, in St. Virus's dance, for example, ten grains of subcarbonate of iron for a fortnight, and tell you they tried it, but it did no good; and the same with regard to hydrocyanic acid—they will give one or two minims of it, and then tell you that it did no good. There is no rule for a dose of medicine at all. It is right to commence with the smallest established doses in chronic cases, but if you find it does not produce the good you wish, and yet does not produce any ill effect—for both circumstances must be considered—then you must increase the quantity steadily, and watch it. As a simple rule, you may effect all the purposes you wish with one or two minims of prussic acid; in other cases six or eight are required. Of the carbonate of iron, half a drachm three times a-day will often accomplish your purpose, but in other cases you must give half an ounce. This is the same principle on which you act in other cases. Suppose an individual constipated in the bowels, and you give him a

strong dose of physic, and it will not answer; what do you do? You give him a stronger dose, and you go on till, in nine cases out of ten, you effect your purpose. But with respect to other medicines, they are often given in the most inefficient manner.

Two things are required in a medical man—the one is *knowledge*, the other is a sort of *moral energy*. A man may be most learned, be well read in his profession, be quite aware of every thing, and yet, when he comes to its real use, have no perseverance, no energy, no courage to do what is necessary. On the other hand, if you have courage to do all that is required, if you have energy, yet if you have not knowledge, then such a man is one of the most dangerous of characters. No person can too strongly condemn energy without knowledge. Two things are thus requisite to perfect the medical character; the one is a full knowledge of his profession, which is to be acquired by reading, by lectures, but more especially by observation, witnessing what you have read and heard lectured about; but the other is that which can only be acquired by practice, and must, after all, depend much upon native character, and which no person, from merely seeing another practise, can ever attain; and that is, energy to put into execution what his knowledge tells him to do. I am satisfied that it is the want of this energy, and not the defects of our science itself, that has caused physic to be so behind hand as it is. I am satisfied that if we are energetic, if we are constantly on the look-out for facts, constantly trying every thing rational, we may bring our profession to a point of perfection that at present we have no idea of. Patients will always die long before old age wears them out, and death will always be attributable, in some cases, to many circumstances that do not bring our profession into fault. If persons will ruin their constitutions, if they will for a length of time expose themselves to unfavourable circumstances, which must injure the body locally or generally, it will be absurd to expect then any means can reform their dilapidated frame; a new body would be required. But, with that exception, I have no doubt that we may ascertain the nature of diseases to such an extent, and acquire such a knowledge of the medicinal power of various substances, some that we already employ, but which are only partially known, and may likewise obtain possession of so many other medicines which at present are not known at all, that we may be able to confer far greater blessings on the community than are now within our power. I believe that, with constant attention and energy on your parts, we may see the profession, even in your day, rise to an excellence it has not yet attained. We may be certain that every exertion we make for the advancement of our profession, however

scanty its results; nay, should it entirely fail, will pave the way for success with those who come after us; that it will facilitate their labours; and though we may only toil at mauling and preparing the land, our successors will gather fruit, and practise with success where we failed. With this persuasion, it is our duty to persevere, as the forerunners of those who will come after us with more knowledge, and practise with greater success.

[The learned lecturer then retired amidst the long and continued plaudits of his admiring pupils.]

APHORISMS IN THERAPEUTICS.

Senna, in decoction of prune-sauce (*jus de pruneaux*), loses all its nauseous flavour, and may be given in that form with advantage.—*Laennec*.

If an angina be complicated with an eruptive disorder, it is best to be wary in the use of the lancet.—*Idem*.

The regular uniform manner in which boils go through their evolutions is well known: one of them, for instance, will grow big and painful, and be scarcely resolved, when it is followed by another (a smaller one generally) which has been until then stationary, but which then proceeds through its course; and so on with a whole series of them. Now I have found, in these cases, that a plaister of mother ointment (*onguent de la mère*) may be applied to the rising brood with good effect. It prevents the contact of the air, the rupture of the vesicle, and the effusion of humour; small scales are then formed, and the development of the farunculus is arrested.—*Lisfranc*.

Hypertrophy of the heart is pretty frequently concluded by a state of coma and oppression, which cuts short the life of the patient.—*Cayol*.

Intermittents that degenerate into quotidiens and continued fevers, stand more in need of emetics than of quinine; especially when there are present such bilious symptoms as a hot and dry skin, a tongue of a yellowish white, headache just above the orbit, alliaceous breath, frequent pulse, &c.—*Cayol*.

The exhibition of nux vomica can only be serviceable in such cases of hemiplegia as are unaccompanied with organic affection of the brain.—*Idem*.

MEDICAL COMMISSION.

Drs. Russel and Barry set off for Riga on the 18th. Dr. Hammel, we understand, is to follow immediately.

NOTICE.

Several Communications, unavoidably omitted to make room for the article on Cholera, shall appear next week.

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SATURDAY, JULY 2, 1831.

LECTURES
ON
MEDICAL JURISPRUDENCE,
Delivered in the University of London.
By PROFESSOR AMOS.

—
ON INSANITY.

(Parenthetical illustration of the law of Rape)
—*Meaning of Insanity in English law—Opinions of Lords Hardwicke, Eldon, and Lyndhurst, on the Nature of Unsoundness of Mind—“Soundness of Mind,” a legal term which has not been precisely defined—Lord Erskine’s Rule—Hutfield’s Case—Bellingham’s—Case of Rebecca Hodges.*

GENTLEMEN,

I PROPOSED proceeding this evening with the subject of “insanity.” But before entering upon that subject, I will give a short illustration, from the trials of the last Midland circuit, of the law of rape, which we examined previous to Easter. The trial took place at Warwick. The prosecutrix was a widow, and had had three children. She went to the prisoner’s house to be hired as a servant. After talking about the hiring, the prisoner said to her, “if you come here, we shall be as one.” To which she answered, “no, sir, I will not have my character injured in that kind of way, and bring disgrace on my parents.” Upon which the prisoner took hold of the prosecutrix round the waist, and, to use the words of the witness, “accomplished his purpose.” She struggled all the time to get away. When she returned to the house where she lodged, she appeared in great distress, and cried several times during the evening. Upon cross-examination, the prosecutrix was asked if she had not said, that nothing would occur from it. But this was explained away, and only tended to strengthen the case on the part of the prosecutrix. By

the witness saying so, she meant, that in consequence of her struggling, she should not be with child. This is not an uncommon notion, and was once the doctrine of the English law, that a woman who resisted a rape would never conceive. It appeared further, upon cross-examination, that the woman did not scream; that on her return to the house where she lodged, she was asked what was the matter; that she appeared in much distress, and said, “nothing particular;” and that she slept with another female, and never communicated the circumstances to her that night. The judge thought this was a clear answer to the capital charge. But although in all cases of rape, it is always a most important feature, whether an early complaint is made or not, yet I think that the prosecutrix in this case sufficiently explained her conduct by saying that the persons she was lodging with were not related to her, and that she sent for her father and mother and told them about it the next morning.

A medical man, Mr. Edward Granger, deposed to examining the prosecutrix’s person. She told him that she had been violated, and was very ill. He asked her if force had been used, or she had been knocked down. She said, no; she had been thrown down, and held down. He asked if she called out for assistance, or made any noise. She said, no. He asked her why she did not? She replied, because there were no people on the premises. He examined her person, and found no bruises about her thighs. The jury returned a verdict of *acquittal*; and stated as their reason that the degree of resistance on the part of the female was not such as to justify them in returning the prisoner guilty of the capital charge. The circumstance of the prosecutrix not having screamed, or called out for assistance, seemed to have had great effect on the minds of the jury. But as this circumstance did not appear on the prosecutrix’s deposition before the magistrate, if the prosecutrix had died before the trial, her deposition would have

been read in evidence without any palliating circumstance. In that case the prisoner would probably have owed his life to the surgeon who elicited the fact of the woman not having screamed from the prosecutrix. And this would have been another instance, in addition to the many that could be cited, of the great influence which medical witnesses have on the administration of the criminal law of the country, not only in respect of evidence which is strictly of a medical nature, but because they are so often among the first persons, after a violent injury committed, who are brought into communication with the accuser and the accused.

After laying so much stress upon the circumstance of a woman's screams, I should observe that I have seen several instances of prosecutions for rape where violent screams have been proved, which have ended in acquittals. In one instance, in particular, in Leicestershire, I recollect the screams of the girl being proved by several witnesses. But she had in some measure brought the mischief on herself by walking with a man in a solitary place late in the evening; and what had considerable weight with the jury was, that as soon as the man had accomplished his purpose, the girl said to him, "Oh, George! there is nothing like a good conscience and a pious life!"

I shall now proceed in the order of the course to the subject of *Insanity*.

I am rather ashamed to read to you what is usually referred to by lawyers as the principal legal authority upon the subject of lunatics. It is from the writings of Lord Coke.

"*Non compos mentis* is of four sorts; 1, *idiot*, which, from his nativity, by a perpetual infirmity, is *non compos mentis*; 2, he that by sickness, grief, or other accident, wholly loseth his memory and understanding; 3, a lunatic, that hath sometime his understanding and sometime not, *aliquando gaudet lucidis intervallis*, and therefore he is called *non compos mentis*, so long as he has not understanding. Lastly, he that by his own vicious act for a time depriveth himself of his memory and understanding, as he that is drunken."—Coke, *Littleton*, 247, a.

It is very necessary, in attending to the subject of insanity, either as a legal or medico-legal question, to have particularly in view the object for which the inquiry is instituted. Is it to determine whether the management of a person's affairs shall be taken out of his hands? Or is it, whether he is discharged from criminal responsibility? Or is it, whether his civil obligations are binding on him; whether his will and testament is a good will and testament? Insanity means a very different thing in the English law, according as it is spoken of with reference to these different inquiries.

First, then, we will speak of the insanity which will induce the Chancellor to grant a writ *de lunatico inquirendo*, in order to deprive a person of the management of his own affairs. The legal definition of this species of insanity has changed very much within the last half century. I will read you a judgment of Lord Hardwicke's.

"In *ex parte Barnsley*, upon a petition to quash an inquisition, finding the practitioner, from the weakness of his mind, incapable of governing himself, his lands and tenements, the petitioner's counsel observed that there were but two distinctions in law, viz. idiocy and lunacy; and although the latter had been since described by other words, i. e. *non compos mentis*, *insane memorie*, of unsound mind and memory, yet that the words only were changed, and not the law. Upon which Lord Hardwicke observed that it was so, and that nothing could change the law therein but an act of parliament. *Non compos mentis*, or, since the proceedings have been in English, "of unsound mind," which mean the same thing, are legal terms of a determinate signification, understood by courts of law, importing not weakness of understanding, but a total deprivation of sense. God forbid! continued his lordship, that weakness of mind only, should be a sufficient reason for granting the custody of persons and their estates, for that would take in violent people, drunkards, careless, and silly; and the material part of the traverse is, not to the incapacity of judgment, but to the more material words of unsound mind, or *insane memorie*, which all persons must understand to be a deprivation of reason, or the want of it: but weakness does not carry that idea along with it, and would be expressed in latin by *infirmilas mentis* rather than *insunilas mentis*. He was anxious to maintain the prerogatives of the crown within their just limits, but he ought to take care not to extend them so as to restrain the liberty of the subject, and his power over his person and property, further than the law allowed. The rule of law can only be altered by act of parliament. In the notion of the old writs, a person must be found either idiot or lunatic; and the courts enlarged the manner of finding, to avoid the difficulty of obliging the jury to find express lunacy, when they might think the case rather that of idiocy. If a man is so weak as to be imposed upon in the execution of a deed by the artifice of another, or spends his money foolishly, or weakly, he does not come within the meaning of the law in cases of this sort; but if men or women, through the weakness of their minds, are drawn in to execute conveyances by fraudulent means, they are relieviable in the Court of Chancery; and bills are frequently brought by such persons to avoid their acts, on the

ground of fraud. Commissions of lunacy are not intended for such men: their relief is by decree."—*Collinson*, p. 61.

We will contrast with this a judgment of Lord Eldon's.

"Of late (says his lordship) the question has not been, whether the party is absolutely insane; but the court has thought itself authorised, (though certainly many difficult and delicate cases with regard to the liberty of the subject occur upon that) to issue the commission, provided it is made out, that the party is unable to act with any proper and prudent management, liable to be robbed by any one, under *imbecility* of mind, not strictly insanity, but, as to the mischief, calling for as much protection as actual insanity. In the case of Mr. Charles Palmer, he was not insane, but his mind, by years and attention to business, was worn out. Epileptic fits, too, may produce a mind in the same state at a much earlier period. Such cases, therefore, have been thought proper subjects of this writ—*de lunatico inquirendo*. In another recent case, the commission stood upon the same principle. The party, when he could be kept sober, was a very sensible man, but in a constant state of intoxication he was perfectly incapable. No one can look at the present case without seeing that every person about this lady is satisfied that some care should be thrown round her. If clearly it is fit to protect her against executing powers of attorney, that she should not decide where her person, or with what trustees her property ought to be, all agreeing that she should not choose the persons who are to have the care of her property, it is fit for me to put a control upon those who may be proper persons to have the control of her property. I will not subject her now to another commission, but will direct two physicians, who have not been concerned and consulted, to see the evidence, and afterwards in the most tender manner to find the means of visiting her without alarming her, for the purpose of determining whether her state of mind is competent to the management of her affairs, for this does not seem a case of insanity; and I should think myself bound to do this, if it was only made out that it is not fit she should have the management of her pecuniary affairs. I am pretty confident Lord Hardwicke would not have gone so far, but finding, when I came here, a course of cases establishing this authority, and feeling a strong inclination to maintain it, or that the legislature should take measures to preserve persons in a state of imbecility, laying them as open to mischief as insanity; till those decisions are reviewed, I will not alter them."—8 *Vesey, Ridgway v. Darwin*.

And I will refer you to the latest decision on the subject—a judgment of Lord Lyndhurst's. After citing the previous decision

of Lord Eldon, his lordship proceeds:—

"The law, as thus stated, has been acted upon for years: it has been acted upon in the view of the legislature: the legislature has not thought proper to interpose, and we must, therefore, take the law to be as thus expounded. Yet I think it unsafe that this verdict* should stand. The finding here is similar to what was found in *Cranmer's* case. There the verdict was, "that H. C. was so far debilitated in his mind as to be incapable of the general management of his affairs." What did Lord Erskine say on that occasion? "How can I tell what is so far debilitated in his mind as not to be equal to the general management of his affairs? Suppose he was a farmer, and his understanding was so far debilitated that he could not manage his farm, though competent to common purposes." What are the affairs to the management of which he is incompetent? Those affairs may be of such a nature that a certain degree of impairment of memory may render him incompetent to the management of them, and yet he may not be of unsound mind. The inference of the jury—"and consequently he is of unsound mind"—does not satisfy me—it does not follow necessarily from the premises: I cannot, therefore, allow the verdict to stand."—4 *Russell Rep.* 183.

In these cases of commissions of lunacy, the jury are to find the party either of "sound" or "unsound" mind. But this state of unsoundness of mind, in the legal sense of the present day, is perhaps not very easy to define, for it is neither lunacy, idiocy, imbecility, or incompetency to manage affairs. It, however, always involves the idea of unfitness to manage a person's own affairs. And yet we have seen that an inquisition finding a person unfit to manage his own affairs, and therefore not of sound mind, has been held bad. And a person may be bedridden, and so not able to manage his own affairs, and yet be of good understanding. The term unsoundness of mind, therefore, in its legal sense, seems to involve the idea of a morbid condition of intellect, or loss of reason, coupled with an incompetency of the person to manage his own affairs. Dr. Haslam concludes some very pertinent observations on the subject of unsoundness of mind thus:—"After having taken this view of the subject, which is the result of extensive experience in this department of the profession, and of diligent inquiry into the nature of the human mind, it appears to me, that the medical practitioner may safely and conscientiously infer unsoundness of mind, if such

* The verdict was, "that the party was not lunatic, but partly from paralysis, and partly from old age, his memory was so much impaired as to render him incompetent to the management of his affairs, and consequently that he was of unsound mind, and had been so for the term of two years."

term be legally insisted on, whenever a morbid condition of intellect prevails, to an extent which deprives the mind of its natural and healthy offices, by producing an incapacity or inability in the individual to conduct himself and manage his affairs."

Before quitting the subject of commissions of lunacy I shall say a few words respecting the examination of the lunatic by the jury. "It may here be proper to notice that in the criminal court the testimony of others is sufficient to establish the insanity of the prisoner. Under a writ *de lunatico inquirendo*, superadded to the testimony of others, the person supposed to be insane is usually produced before the commissioners and jury, and by them examined, in order to confirm or invalidate the evidence which has been adduced, and to satisfy their minds that he is a lunatic at the time of their inquiry. Although there is much fairness and impartiality in the examination of the patient by the commissioners and jury to ascertain by actual inquiry that his state of mind tallies with the evidence deposed, yet it sometimes occurs that the patient, fully aware of the proceedings, will by subtlety endeavour to defeat them. He will artfully conceal his real opinions, and even affect to renounce such as have been deemed proofs of his insanity, and on many occasions he has been so skilfully tutored as to foil the united penetration of lawyer and physician. It is on such occasions that the sagacity and experience of the medical practitioner are demanded, and it will in some instances occupy a considerable time to institute such examination as shall suffice to unravel the real state of his opinions. It is nearly impossible to give any specific directions for conducting such examination as shall inevitably disclose the delusions existing in the mind of a crafty lunatic; but in my own opinion it is always to be accomplished, provided sufficient time be allowed, and the examiner be not interrupted. It is not to be effected by directly selecting the subjects of his delusion, for he will immediately perceive the drift of such inquiries, and endeavour to evade, or pretend to disown them: the purpose is more effectually answered by leading him to the origin of his distemper, and tracing down the consecutive series of his actions and association of ideas: in going over the road where he has stumbled he will infallibly trip again."—*Hastam*, p. 66.

To these observations I may add the statement of the facts of two cases mentioned by Lord Erskine in his speech upon Hatfield's trial.

"He alone can be so emancipated, whose disease (call it what you will) consists, not merely in seeing with a prejudiced eye, or with odd and absurd particularities, differing, in many respects, from the contemplations of sober sense, upon the actual exist-

ence of things; but he only whose whole reasoning and corresponding conduct, though governed by the ordinary dictates of reason, proceed upon something which has no foundation or existence. Gentlemen, it has pleased God so to visit the unhappy man before you—to shake his reason in its citadel—to cause him to build up as realities the most impossible phantoms of the mind, and to be impelled by them as motives irresistible, the whole fabric being nothing but the unhappy vision of his disease—existing no where else—having no foundation whatsoever in the very nature of things. Gentlemen, it has been stated by the Attorney-General, and established by evidence, which I am in no condition to contradict, nor have, indeed, any interest in contradicting, that when the prisoner bought the pistol which he discharged at, or towards his Majesty, he was well acquainted with the nature and use of it; that, as a soldier, he could not but know that in his hands it was a sure instrument of death; that when he bought the gunpowder, he knew it would prepare the pistol for its use; that when he went to the playhouse, he knew he was going there, and every thing connected with the scene, as perfectly as any other person. I freely admit all this. I admit that every person who listened to his (Hatfield's) conversation, and observed his deportment upon his apprehension, must have given precisely the evidence delivered by his Royal Highness the Duke of York; and that nothing like insanity appeared to those who examined him. But what then? I conceive, gentlemen, that I am more in the habit of examination than either that illustrious person, or the witnesses from whom you have heard this account; yet I well remember (indeed I never can forget it) that since the noble and learned Judge has presided in this Court, I examined, for the greater part of a day, in this very place, an unfortunate gentleman who had indicted a most affectionate brother, together with the keeper of a mad-house at Horton, for having imprisoned him as a lunatic; whilst, according to his evidence, he was in his perfect senses. I was, unfortunately, not instructed in what his lunacy consisted, although my instructions left me no doubt of the fact; but, not having the clue, he completely foiled me in every attempt to expose his infirmity. You may believe that I left no means unemployed which long experience dictated; but without the smallest effect. The day was wasted, and the prosecutor, by the most affecting history of unmerited suffering, appeared to the Judge and Jury, and to a humane English audience, as the victim of the most wanton and barbarous oppression: at last Dr. Sims came into court, who had been prevented by business from an earlier attendance, and whose name, by-the-by, I

observe to-day in the list of the witnesses for the crown. From Dr. Sims I soon learned that the very man whom I had been above an hour examining, and with every possible effort which counsel are so much in the habit of exerting, believed himself to be the Lord and Saviour of mankind; not merely at the time of his confinement, which was alone necessary for my defence, but during the whole time that he had been triumphing over every attempt to surprise him in the concealment of his disease. I then affected to lament the indecency of my ignorant examination, when he expressed his forgiveness, and said, with the utmost gravity and emphasis, in the face of the whole court, 'I am the Christ,' and so the cause ended. The following account of a memorable case tried before Lord Mansfield at Chester, I obtained from that great man himself:— 'A man of the name of Wood,' said his Lordship, 'had indicted Dr. Monro for keeping him as a prisoner (I believe in the same mad-house at Hoxton) when he was sane. He underwent the most severe examination by the defendant's counsel without exposing his complaint; but Doctor Battye, having come upon the Bench by me, and having desired me to ask him what was become of the Princess whom he had corresponded with in cherry-juice, he showed in a moment what he was. He answered, that there was nothing at all in that, because, having been (as every body knew) imprisoned in a high tower, and being debarred the use of ink, he had no other means of correspondence but by writing his letters in cherry-juice, and throwing them into the river which surrounded the tower, where the Princess received them in a boat. There existed, of course, no tower, no imprisonment, no writing in cherry-juice, no river, no boat; but the whole the inveterate phantom of a morbid imagination. I immediately, (continued Lord Mansfield) directed Dr. Monro to be acquitted; but this man, Wood, being a merchant in Philipot-Lane, and having been carried through the city in his way to the mad-house, he indicted Dr. Monro over again, for the trespass and imprisonment in London, knowing that he had lost his cause by speaking of the Princess at Westminster; and such (said Lord Mansfield) is the extraordinary subtlety and cunning of madmen, that when he was cross-examined on the trial in London, as he had successfully been before, in order to expose his madness, all the ingenuity of the bar, and all the authority of the court, could not make him say a single syllable upon that topic, which had put an end to the indictment before, although he still had the same indelible impression upon his mind, as he signified to those who were near him; but, conscious that the delusion had occasioned

his defeat at Westminster, he obstinately persisted in holding it back."

Having said thus much concerning the point of inquiry upon commissions of lunacy, from which you will have collected that "soundness of mind" is then the subject of investigation, and that this is a legal term, the definition of which has varied, and cannot, even in the present day, be stated with any thing like scientific precision,—we will now proceed to another purpose for which a legal inquiry is instituted respecting the question of insanity, which is, to determine the responsibility of a prisoner for a criminal offence. Here the predominating point of investigation is, not, as in the last case, a competency or incompetency in an individual to manage his own affairs; but whether he has a "sense of right and wrong." Upon every trial of this nature at which I have been present, it has been usual to put such questions as these to medical witnesses: "whether they believe the prisoner able to distinguish between right and wrong, good and evil?" Respecting questions of this nature, Dr. Haslam thus expresses himself:—

"On those occasions where the madman has been tried in a criminal court, the counsel for the prosecution has usually and gravely inquired of the medical evidence, whether the prisoner on ordinary topics, and on subjects unconnected with his insanity, would not converse in a rational manner? and also, whether he did not possess sufficient understanding to discriminate between good and evil, right and wrong? When a medical person is employed concerning any one to whom insanity is imputed, his principal inquiry is concerning his insanity: it is not his object to ascertain how much reason he possesses, but how far, and on what topics, he is insane. And having gauged his insanity, he has performed his duty. If it should be presumed, that any medical practitioner is able to penetrate into the recesses of a lunatic's mind, at the moment he committed an outrage—to view the internal play of obtruding thoughts and contending motives—and to depose that he knew the good and evil, right and wrong, he was about to commit—it must be confessed that such knowledge is beyond the limits of our attainment..... Respecting the quantum of reason which the lunatic possesses, the physician may safely conclude, where he betrays no derangement, that on such topics he is of sound mind; and the fact is firmly established, that those who are insane on particular subjects will reason correctly on ordinary and trivial points; provided they do not become associated with the prevailing notions which constitute their insanity. Ordinary persons have been much deceived by this temporary display of rational discourse..... Although an insane person may be calm and apparently rational at the

beginning of an interview, yet when least expected his disorder breaks forth, and in many instances there seems to be no cause for this conversion from apparent sanity to evident derangement. In the commencement of the conversation the lunatic shall evince a healthy perception of existing objects, and institute a just admeasurement of the subject under contemplation; or in other words shall reason correctly; if he be placed in the society of other madmen, he is able to detect the folly and aberration from reason which characterize their peculiar phantasies, and will often endeavour to convince them of the absurdity of their prevailing opinions, yet in a moment his mind launches into the regions of fiction, its admired clearness becomes obscured, and its seeming regularity exhibits a confused assemblage, or violent distortion. There is no intermediate condition which separates these states; and the transition very much resembles the last connected glimpses of our waking thoughts, followed by the abrupt creation of a dream."

The capacity of distinguishing between right and wrong seems to be more properly an inference to be drawn by the jury, than a question to be put to a witness. The question is, however, commonly put; only a distinction is observed in examining the medical witness, which I will notice. The kind and degree of insanity which renders a person irresponsible for criminal acts, is a subject upon which it is impossible to give any precise and scientific notions.

Lord Hale's authority is usually quoted upon this subject. I regret that you will not find it more satisfactory than the opinions of Lord Coke upon lunacy in general.

[Here Mr. Amos read an extract from Hale's Pleas of the Crown, vol. i. page 30, folio edition.]

A line was drawn by Lord Erskine, when at the bar, in Hatfield's case, which I conceive is a correct statement of the law, as far as it applies; but I think it is not applicable, and would not be a safe criterion, in a great number of cases that are brought before courts of justice. Lord Erskine's proposition is, that, to absolve from criminal responsibility, there must first be *delusion*; and, secondly, *the delusion and the act must be connected*.

I will read you some of Lord Erskine's remarks.

"In all the cases which have filled Westminster Hall with the most complicated considerations—the lunatics, and other insane persons who have been the subjects of them, have not only had memory, in my sense of the expression—they have not only had the most perfect knowledge and recollection of all the relations they stood in towards others, and of the acts and circumstances of their lives, but have, in general, been remarkable for subtlety and acuteness. Defects in their

reasonings have seldom been traceable—the disease consisting in the delusive sources of thought: all their deductions within the scope of the malady being founded upon the immovable assumption of matters as realities, either without any foundation whatsoever, or so distorted and disfigured by fancy, as to be almost nearly the same thing as their creation. It is true, indeed, that in some, perhaps in many cases, the human mind is stormed in its citadel, and laid prostrate under the stroke of frenzy; these unhappy sufferers, however, are not so much considered by physicians as maniacs; but to be in a state of delirium, as from fever. There, indeed, all the ideas are overwhelmed, for reason is not merely disturbed, but driven wholly from her seat. Such unhappy patients are unconscious, therefore, except at short intervals, even of external objects; or, at least, are wholly incapable of considering their relations. Such persons, and such persons alone, (except idiots) are wholly deprived of their understandings, in the Attorney-General's seeming sense of that expression. But these cases are not only extremely rare, but never can become the subjects of judicial difficulty. There can be but one judgment concerning them. In other cases, reason is not driven from her seat, but distraction sits down upon it along with her, holds her, trembling, upon it, and frightens her from her propriety. Such patients are victims to delusions of the most alarming description, which so overpower the faculties, and usurp so firmly the place of realities, as not to be dislodged and shaken by the organs of perception and sense: in such cases the images frequently vary, but in the same subject are generally of the same terrific character.—Here, too, no judicial difficulties can present themselves; for who could balance upon the judgment to be pronounced in cases of such extreme disease? Another class, branching out into almost infinite subdivisions, under which, indeed, the former, and every case of insanity may be classed, is, where the delusions are not of that frightful character—but infinitely various, and often extremely circumscribed; yet where imagination (within the bounds of the malady, still holds the most uncontrollable dominion over reality and fact; and these are the cases which frequently mock the wisdom of the wisest in judicial trials; because such persons often reason with a subtlety which puts in the shade the ordinary conceptions of mankind: their conclusions are just, and frequently profound; but the premises from which they reason, when within the range of the malady, are uniformly false—not false from any defect of knowledge or judgment, but because a delusive image, the inseparable companion of real insanity, is thrust upon the subjugated understanding, incapable of resistance, because unconscious

of attack. Delusion, therefore, where there is no frenzy or raving madness, is the true character of insanity; and where it cannot be predicated of a man standing for life or death for a crime, he ought not, in my opinion, to be acquitted; and if courts of law were to be governed by any other principle, every departure from sober, rational conduct, would be an emancipation from criminal justice. I shall place my claim to your verdict upon no such dangerous foundation. I must convince you, not only that the unhappy prisoner was a lunatic, within my own definition of lunacy, but that the act in question was the immediate, unqualified offspring of the disease. In civil cases, as I have already said, the law avoids every act of the lunatic during the period of the lunacy; although the delusion may be extremely circumscribed; although the mind may be quite sound in all that is not within the shades of the very partial eclipse; and although the act to be avoided can in no way be connected with the influence of the insanity; but to deliver a lunatic from responsibility to criminal justice, above all, in a case of such atrocity as the present, the relation between the disease and the act should be apparent. Where the connexion is doubtful, the judgment should certainly be most indulgent, from the great difficulty of diving into the secret sources of a disordered mind; but still, I think, that as a doctrine of law, the delusion and the act should be connected."

Hatfield had prepared and cleaned a pair of pistols in the morning; had placed himself in the pit of the theatre nearly three-quarters of an hour before the king entered; and when he fired, his situation appeared favourable for taking aim, for he was standing upon the second seat from the orchestra in the pit, and he took a deliberate aim by looking down the barrel; he had concealed his pistol, besides, from every body near him till the moment when he raised himself on his seat to take aim. So that there was an abundance of method in his madness. But Fraking's defence was, that the whole of his conduct was referrible to a delusion—to a delusion closely connected with the very act of shooting at the king.

Were this principle of requiring proof of delusion accompanying the act imputed to the prisoner enforced to its full extent, small indeed would be the number of madmen escaping the penalties of the law. There are not, however, wanting legal authorities which confine the exemption from responsibility, on the ground of insanity, within very narrow limits. For example, in the case of Lord Ferrers, for which I must refer you to the State Trials, vol. xix.; and I may add the case of Bellingham, who was tried and executed for shooting Mr. Perceval, in the lobby of the House of Commons. The Judge's

charge in this case, upon the subject of insanity, was in these terms:—

"In one part of the prisoner's defence, it was attempted to be proved that, at the time of the commission of the crime, he was insane. With respect to this the law is extremely clear. If a man were deprived of all power of reasoning, so as not to be able to distinguish whether it was right or wrong to commit the most wicked transaction, he could not certainly do an act against the law. Such a man, so destitute of all power of judgment, could have no intention at all. In order to support this defence, however, it ought to be proved by the most distinct and unquestionable evidence, that the criminal was incapable of judging between right and wrong. It must, in fact, be proved beyond all doubt, that at the time he committed the atrocious act with which he stood charged, he did not consider that murder was a crime against the laws of God and nature. There was no other proof of insanity which would excuse murder or any other crime. In the case of Thomas Bowler, who was tried at the Old Bailey on the 2d of July, 1812, for wilfully and maliciously discharging a blunderbuss at William Burrowes, Sir Simon Le Blanc, before whom the trial took place, after summing up the evidence, concluded by observing to the jury, that it was for them to determine whether the prisoner, when he committed the offence with which he stood charged, was or was not incapable of distinguishing right from wrong, or under the influence of any illusion in respect of the prosecutor which rendered his mind at the moment insensible of the nature of the act he was about to commit, since in that case he would not be legally responsible for his conduct. On the other hand, provided they should be of opinion that when he committed the offence he was capable of distinguishing right from wrong, and not under the influence of such an illusion as disabled him from discerning that he was doing a wrong act, he would be amenable to the justice of his country, and guilty in the eye of the law. The jury pronounced the prisoner guilty."—*Collinson*, p. 671 and 673.

Many persons have thought that great hardship was shewn towards Bellingham, in not postponing his trial. It has been observed by a writer in an able periodical, that "Sir Vicary Gibbs and Mr. Garrow, who were counsel for the crown in this case, do not seem to have exhibited that indulgence towards the prisoner which usually characterizes the administration of our criminal law. Mr. Alley, on the prisoner's behalf, contended for a postponement of the trial, to allow time for procuring evidence of his insanity. He supported the claim by the affidavits of two persons, both declaring the assassin to be of unsound mind, and to have been so since his return from Russia, some two years be-

fore, One of these, on hearing of the deed, had hastened to London to give her testimony, influenced as it would seem by nothing else than her entire persuasion of Bellingham's infirmity. But neither had seen him within the last four months. It was therefore objected on the other side, that were he really insane, persons would have been found to come forward and aver it, who had seen and known him during his recent residence in London, and on this ground further delay was refused, and the prisoner, of course, executed."

Soon after Bellingham's trial, a man was tried at Warwick, who rushed into a room where there were some people whom he had never seen before, and killed one and gave another seven wounds; and then rushed out and ran into a river, brandishing the knife with which he had inflicted the injury. Under the judge's directions, the jury negatived the plea of insanity.

But, notwithstanding these authorities, I have known instances of acquittals where there has been no delusion immediately connected with the act charged upon the prisoner, and where there has been considerable contrivance accompanying the act: but where the general conduct of the prisoner has led to a belief of derangement.

I will conclude my lecture with reading a case of this description, which occurred in the year 1809. It is the trial of Rebecca Hodges, indicted at the Warwick Lent Assizes, for feloniously shooting at and wounding Samuel Birch, of that county.

"Mr. Clarke opened the proceedings, and recapitulated the leading circumstances of the case.

"Sarah Bradbury was niece to Mr. Birch, and was his house-keeper. Between ten and eleven o'clock at night, on the 27th of February last, she left Mr. Birch in the kitchen, asleep by the fire, and went to bed; shortly after she heard a noise as if somebody was walking about in the kitchen, and soon after she heard the report of a pistol. She went down stairs, when her uncle was sitting where she left him. She asked him what was the matter? He said, nothing. She said there was;—she felt his head, and it was wet—it was all over blood. The house smelled strongly of powder. Her uncle then went out to a neighbour's house. Witness said the prisoner lived with her uncle, from November to August, about seven years ago; and the reason she went away was, that she went one Saturday to fetch a pail of water and did not come back till the next Monday, and when she returned her uncle would not take her into his service again.

"Samuel Birch said he lived at Ward End; on the evening of the 27th of February last, about eleven o'clock, he was awoke by the report of a pistol; he felt hurt, and

on raising his hand to his head he found it wet; his hair was scorched, and amongst his hair he found a bullet, which he threw on the ground. His niece came down stairs, and he went to a neighbour's house just by, when his head began to smart, and he discovered he was wounded. He observed the outer door open. The prisoner lived servant with him six or seven years ago, and she was turned away because she left his service without leave. He had never seen her from that time till this accident, to his knowledge.

"Mr. Vickers, surgeon, of Birmingham, was sent for to Mr. Birch, about half-past one in the night; Mr. Birch told him he had been wounded on the head. On examination he perceived one wound on the back part of his head, and another that had been received from a bullet which was then lodged between the bone and the skin. This bullet he extracted, and the other was given to him, having been found on Mr. Birch's floor by the servant girl. The internal table of the skull was broken and extensively fractured. They were not perfect bullets, as there appeared not to have been lead enough put into the mould to make them round; one was flattened by striking against the skull. Witness saw the prisoner at the public-office, in Birmingham; and when she knew that he was the surgeon who attended Mr. Birch, she inquired after him very anxiously—she said, 'He is not dead, I hope?' Witness asked the prisoner how she could account for attempting the life of Mr. Birch?—did he ever behave ill to her? She said, 'No, never.' She then said she lived with Mr. Birch about seven years ago; the first part of her time he made love to her; but in consequence of absconding, her master ordered Miss Bradbury to discharge her. From that period, she said, she vowed to be revenged. She liked Mr. Birch very much; she did not make the attempt sooner because she wanted courage. She said she made the bullets herself, and had rounded them with a knife. Prisoner said she had been near Mr. Birch several times as he had been going from market, but he did not know her, as she had men's clothes on, and a great coat over them. Prisoner said she was in Mr. Birch's tool-house on the Sunday, and was discovered by a boy, of whom she inquired the road to Birmingham, and then went away. She loitered about till Monday night, when she returned to Mr. Birch's house; waited till Miss Bradbury had gone to her room and put the candle out. The prisoner said she then went to the kitchen window, and looking under the shutter, saw Mr. Birch asleep by the fire-side. She then tried the door, which was on the latch, and went in with the pistol cocked in her hand. She said she walked about the house many times, and moved several things, to make a noise, on purpose to

wake him. She said if he had awoke he would have prevented her from shooting him and turned her out. She then went to Mr. Birch, and shot him as he sat in his chair. Prisoner said she stopped in the house till she heard Miss Bradbury call, when she ran into the meadow. There she reloaded the pistol for the purpose of defending herself, expecting the neighbourhood would be alarmed and come in pursuit of her. She lost herself in the meadow, and returned close by the house.

"William Payn, jailer, deposed that when the prisoner was brought to the prison, she was dressed in a dark coat, waistcoat, trousers, and a round hat. He put his hand on her cheek and said she was a woman. He searched her, and found in her pocket a gown and cap. The pistol was loaded with shot, mixed together with the powder, without any paper between them, and very little at the top. —[Here the pistol was produced; it was a brass-barrelled horse-pistol.]—In the morning the prisoner told him she had relations in town. Witness said he would send for them, that she might be released. Prisoner answered, it would be of no use, she would soon be brought there again. Witness asked for what? and prisoner answered, for shooting a man. Mr. Payn, in his cross-examination, said, he thought, from her manner, she had broken out of a place of confinement; and when she said she had shot a man, he did not believe her. He thought she was not in her right senses. When she was in the court-yard, she walked for a long time in the form of the figure of 8, hung her head very low, looked sullen, and drooped.

"On Miss Bradbury and Mr. Birch being asked the question, they both said they never perceived in her any symptoms of derangement.

"Richard Gallimore, a boy, who lived at Sattley turnpike-gate, on the road from Birmingham to Ward End, said, that about three or four months ago, the prisoner came to the turnpike-house, and asked several questions concerning Mr. Birch, particularly if he was gone from market, and what horse he rode? this was between eight and nine o'clock at night.

"Here the evidence closed, and his Lordship asked the prisoner if she had any thing to say in her defence? She said no.

"Francis Woodcock was a magistrate, and lived in Worcestershire. The prisoner lived with him three years. She left him six or seven years ago; she shewed in his service many symptoms of derangement, by talking to herself, by absenting herself from his service, by dancing by herself in the barn and fields, and by picking up sticks in one place and laying them down in another. She'd set up a fork in the middle of a field and dance round it, saying—'*Now Jemmy, my love, up the middle, down the side; that's it,*

my boy.'—The prisoner would go into the fields and wander all day by herself; and one of the men who had gone to fetch her home had put a halter round her middle and led her back; he had pushed her into a pit of water with the rope round her, and she'd only laugh at it. The impression upon him was that she was not of right mind. She had always conducted herself in a virtuous and harmless manner.

"Mary Tupper, the prisoner's sister, said she was not right; she used to go from home two or three miles without her shoes, and sometimes with only one on. About three years ago she drove a staple up in the ceiling of her room, and took a rope to hang herself, but witness prevented her. She was very odd in her conduct by times; she would go out sometimes with scarcely any clothes on her. When she was let go to market she would often lose her butter or the money. She believed she was at times insane.

"His Lordship then addressed the jury. He went through the whole of the evidence, commenting upon it at considerable length. His Lordship, from his observations, seemed inclined to believe that the evidence was strong enough to prove that the prisoner was, at times, not in her right mind; and he concluded with observing to the jury, that if they had any doubt, it would be proper for them to let that doubt operate in favour of the prisoner. The jury instantly returned a verdict of Not Guilty, *on the ground of Insanity.*"

OBSERVATIONS ON TYPHUS.

By JAMES HOLBROOK, M.D.

[Concluded from p. 208.]

It is seldom that cases of fever are presented in the re-active stage unaccompanied with local affections, in the form of inflammation, as the interruption to the balance of the circulations produced by the depressing power of the first impression of the infectious poison on the system, by giving rise to congestive states of the viscera, is sufficient of itself, while re-action is going on, to establish such phenomena; but the frequency, also, of the co-existence of common causes of inflammation, render the re-active stage complicated and aggravated by the superadded operation of the excitement of these local affections.

Notwithstanding the introduction of the poison of fever may, as before stated, be produced through the medium of its operation on the surfaces of the

body exposed to the influence of the morbid matter suspended in the atmosphere, still curative agents, as directed to those surfaces, are equally unavailable with the fulfilment of such indications, as applied to the eruptions of small-pox, although the morbid actions so produced are first made through the medium of an impression on the extremities of the nerves, subsequently extending its operation over the system, in manner before described in the theoretical part of these observations. Yet as no specific remedy against the effects of the poison of fever has hitherto been discovered, the treatment must be directed to combat the phenomena as they arise, aiding the indications to the application of remedies, derived from the theory of the disease, by the assistance of practical experience; from which latter has been obtained the knowledge that the powers of the system are often alone sufficient for its own restoration, although capable of being assisted, guided, and beneficially controlled, by art; and to effect which, in the most efficient manner, is all that can be gained by theoretical reasonings.

This being the case, to control the re-active stage, and promote the restoration of healthy actions, by remedies to counteract the morbid influence introduced into the system by the operation of the infectious poison, and the more urgent of the superadded local affections, must now claim the first attention; but to enter into the details of treatment proper for all the symptoms which may arise, would extend these observations beyond the limits originally intended, without answering any material useful purpose, as the object proposed embraces only a desire to communicate the leading mode of treatment adopted by the author, founded on the basis of directly counteracting the primary morbid actions of the different stages pointed out in a previous part of these observations, leaving all minor and accidental affections to be treated on common principles. As to energetic measures in the two first stages, the main attention ought to be directed; for upon the judicious application of such means, the form of the subsequent phenomena will greatly depend; and it is to the improved mode of treatment of modern times generally, and the practical experience derived from the bold practice of naval and military practi-

tioners, that the deplorably malignant symptoms formerly so common in this disease, are now less frequently met with, both in the wards of public hospitals and in private practice.

The first indications, therefore, in this stage will be to moderate the violence of re-action, both general and local, and to restore the secretions, and the balance of the circulating systems. In doing this, however, several weighty considerations present themselves, as the change introduced by the general pervasion of the operation of the poison throughout the system will have as changed the state of the circulating fluids, by the altered and interrupted actions of the functions of the assimilating and other organs, that it will be necessary, while directing remedies for the purpose of moderating re-action and inflammation, not to reduce the powers of life too much, for no restoration can take place while the system labours under the specific influence of the fever, strictly so called, which has a direct tendency to disorganization and the destruction of the vital powers. The extent, therefore, to which evacuations may be carried must be governed by a comparison between the exhausting effects of the continuance of such actions, the interruption they produce to the performance of the essential functions of organs of importance, and the direct debilitating effects of evacuations. This shews that the abstraction of blood ought not to be used with the same curative intention as in common inflammation, but simply to moderate excessive general re-action, to restore the balance of the circulating systems, and relieve particular local affections, with a view to avoid the more destructive effects of disorganization and indirect exhaustion.

Regulated, then, by the knowledge of the extent to which the morbid re-actions may operate in destroying the functions of important organs, or of exhausting the powers of life—blood, in greater or smaller quantities, should be taken, either generally or locally; while at the same time all foul and irritating matter should be carried off from the alimentary canal by calomel, assisted by salts and senna, castor oil, or rhubarb, according to circumstances; but as the re-active state extends as well to the mucous surfaces of this canal as to all other parts of the system, the operation of purging will not require to be carried

o the same extent as during the preceding state of oppression and congestion; as in the latter, the action of purging, by relieving the oppressed organs, conveys an indirect power to the system; but in the re-active stage, the oppression is already overcome; consequently, the effect of very active purging will, under such circumstances, be likely to reduce the powers of life too much, and more so than the judicious abstraction of blood, carried to no further extent than to moderate excitement, and relieve particular organs; especially the local abstraction, by which the indirect exhaustion will be prevented; but by the operation of over purging, the direct support which is afforded to the system, through the medium of the nerves, and conveyed to the brain, by the maintenance of the tone of the chylopoietic viscera, is destroyed, and can with difficulty be restored.

It is, however, necessary that such proper action should be kept up on the bowels as shall remove all irritating matter as fast as formed, and that the secretions should also be promoted; and in cases of great determination to the abdominal viscera and biliary organs, evacuations should be carried further than when the head and lungs are the organs principally affected; and on all occasions while the matter discharged is of a brown muddy appearance, leaving a dirty brown stain on the linen, purgation must be persevered in; but when, on the contrary, the evacuations are watery, and of a light colour, greater caution must be observed, lest undue exhaustion should be induced.

The extent of the abstraction of blood may be further regulated by the degree of the operation of the general reaction on the local affections; but the former, when unaccompanied by urgent affections of the latter kind, should be subdued by promoting the secretions, and reducing the temperature of the surface of the body by ablutions, or sponging with cold or tepid water, when the heat is steadily above the natural standard, and by removing all sources of irritation having either a direct or indirect operation.

In adapting remedies to the local affections of the viscera, attention should be paid to discriminate the system of vessels affected, as by that means the direct operation of remedies may be more judiciously applied. When the

system of the vena porta is congested, the lungs and brain are liable to be similarly oppressed by venous congestion; but when inflammatory action takes place, the arterial capillaries of such organs are the vessels affected.

In the former, therefore, attention should be principally directed to promote the circulation through the liver, and relieve the congestive state of the abdominal viscera by purging; and, in the latter, the local abstraction of blood, and counter-irritation, are the most effectual remedies; and when the head is affected, cold lotions should never be omitted.

In winter and spring the pulmonary organs are generally more particularly attacked; in summer and autumn the abdominal viscera; and the head in both.

When the lungs are in a state of congestion or inflammation, bleeding is more immediately called for than in other cases; and when respiration is obstructed by pain, and the patient is afraid of coughing, from the increased uneasiness with which it is attended, it often becomes necessary to bleed two or three times. Care should, however, be taken, not to mistake the effects of hurried circulation on the breathing for inflammation, as in such cases the loss of blood may be seriously injurious, and bring on a dangerous state of exhaustion, or of effusion into the chest.

It is necessary, however, not to be deterred from using the lancet from mistaken fears of producing debility; and even the presence of petechiae, when other indications point out the propriety, ought not to prevent the free abstraction of blood, as those appearances are very fallacious guides as to the state of the system, and often disappear very suddenly when proper ventilation is attended to, and the alimentary canal thoroughly relieved from foul and irritating matter.

When such control has been obtained over the system, by the means above pointed out, as shall have relieved the congestive and inflammatory affections of particular organs, and moderated the excitement of general reaction, the balance of the different systems of circulating vessels, and the synchronism of connected functions, will receive a more general and powerful direction to an unobstructed performance of the natural actions, upon which the maintenance of

the balance of the circulating systems so much depend, by the exhibition of such doses of mercurial and antimonial preparations as shall bring the constitution under their specific influence, within as short a time as may be compatible with avoiding the irritating effects which they are sometimes liable to produce in the *primæ viæ*. Such preparations must therefore be employed as appear to suit the existing state of those organs; and attention should be paid to guard against carrying the mercurial action too far, otherwise injurious consequences may arise, not only from the direct exhaustion produced, but from the serious effects which sometimes follow a violent determination of mercury to the mouth.

When, however, with proper caution a mild mercurial influence has been produced, followed by its usual favourable effects, the subsequent management must be regulated by the directions already pointed out in the treatment of the first stage of this fever. But should disappointment attend the measures—and none are infallible under certain circumstances of aggravated disease, or of previous organic affections of important organs—the subsequent treatment to be pursued in such unfortunate cases may be collected from the directions which will be recommended in the last stage, or that in which the powers of life are prostrate, and all the variety of symptoms described by different authors as occurring in the advanced stages of the malignant, hospital, or gaol fever, and depending on the complete exhaustion of the powers of the nervous and vascular systems, the principle of life apparently with difficulty holding an asylum in the body, and barely maintaining an ascendancy over the disposition to disorganization and chemical decomposition.

Under these circumstances the direct transmission of impressions to and from the brain are disordered, and the previous state of excitement is succeeded by irritable and spasmodic actions, and sometimes by a state of irritable delirium, with facitiation, and incoherent talking and singing; or by a contrary state of oppression, accompanied with coma, and a total insensibility as to all that occurs; and although the contents of the bowels frequently pass involuntarily, the urine may be retained, and undergo decomposition; the little that

dribbles away having a strong ammoniacal smell, the absorption of which from the bladder has been supposed to have a peculiar effect on the brain.

When such a state of coma or lethargy as above described occurs, particular attention ought to be paid to prevent being deceived as to the voiding of urine, as the wet state of the bed, arising from the involuntary evacuations from the bowels, often misleads the attendants; but which may be known by an examination of the hypogastrum, which, when the urine is retained, is distended, hard, and tender, and requires the immediate use of the catheter.

These phenomena would appear to arise from a contrary state of the brain to that of the abolition of the powers of sense and motion, which depend on the pressure of distended vessels or extravasation, as there is absolute impaired nervous energy, the powers of life being exhausted, and the brain no longer receiving that supply from the blood necessary for the maintenance of its functions, which are also less readily called into action from the physical injury it has sustained during the previous states of congestion and re-action.

Here, then, the indications of treatment consist in supporting the system, as the general actions require being roused, in order to accomplish the functional movements of the exhausted organs; when at the same time the oppressed state of some of the viscera require being locally relieved by the application of blisters or sinapisms, the latter particularly when the powers of life are much reduced, as blisters are then liable to terminate in gangrene.

In the approach to these states of exhaustion, petechiæ and vibices are to be viewed as different to the petechiæ which sometimes appear earlier in the disease, as they now point out the extremely attenuated and dissolved crasis of the blood; and in which state hæmorrhages from different organs are very frequent, which when slight seem to afford relief, but when to any great extent, as sometimes occurs from the bowels and uterus, by its direct reduction of the vital principle, leads to a rapidly fatal termination.

The remedy most successfully employed on these occasions of extravasation, is the *Ol. Terebinth.* given in slight cases in doses of ℥ss . *6tis horis*; but when the discharge of blood has been

considerable, larger doses must be administered, as $\frac{3}{4}$ ss. or more, and repeated according to circumstances, which appears to have the effect of exciting the capillaries, and promoting venous absorption, while at the same time it increases the urinary secretion, the suspension of which, on some occasions, has appeared to contribute to the loaded state of the intestinal vessels, and those of the uterus.

The *Ol. Terebinth.* has also been found serviceable in those cases of abrasion and ulceration of the mucous membrane of the intestines which sometimes occur in the advanced stages of this disease, where irritation of the intestinal canal has been a prominent symptom, and may be suspected to exist when, after such symptoms, there is found much fulness and tenderness of the abdomen, particularly of the right iliac region, accompanied on most occasions by a loose and sometimes a dysenteric state of the bowels, as the full peristaltic action is arrested at the part ulcerated when the ulcerations are numerous or extensive; and it then becomes necessary to allay the irritation of the mucous membrane by opiates, and the form of *Dover's powder* is the best, care at the same time being taken to prevent accumulations above that part of the canal, by the administration of occasional doses of castor oil, neutral salts with senna, and perhaps calomel; but the latter must be given cautiously in the advanced stages of the fever, lest it produce its specific effects on the system, as by its tendency to dissolve the crasis of the blood, and exhaust the system, the powers of restoration may be destroyed.

In these cases the prognosis must be very unfavourable, as such lesions occurring in organs which form a part of the medium of the operation of nature's resources, which the whole course of the alimentary canal may be considered to be, must consequently lessen the chance of restoration.

Throughout the whole progress of this stage of the fever, whenever no contra-indication is presented by the form of the local affections, every means must be used to support the vital powers, by the exhibition of cordials, principally of wine, porter, and medicines of the class of diffusible stimuli, aromatics, and such nourishing food as the stomach will

bear; while, at the same time, the remedies for the local affections are not neglected.

The modification of fever before described as being frequently found to run a protracted course, is often such as at the commencement was of a mild description, and by timely and well-directed treatment might have been arrested in its progress; but on other occasions it has appeared to depend on some peculiarity of constitution existing at the time of the application of the exciting cause. It is characterized by a particular state of depression of the nervous system, without a sufficient tendency to re-action to effect the full development of active disease; and the depressed and oppressed state of the vital powers is such, as to preclude the beneficial employment of active evacuants and resolvents, to relieve the oppressed organs, or, on the other hand, of stimuli to excite the depressed state of the vital powers; while, at the same time, by the peculiar operation of the infectious poison on the extremities of the nerves distributed to the different surfaces of the body, conveyed to the brain and ganglionic system, its effects are extended to the partial suppression of all the secretions.

Under these circumstances experience has proved that the vital powers of the system require being directed to the restoration of the secretory functions, and that all sources of irritation should be removed as fast as formed, by exciting the excretory organs, and allaying such irritable actions as may have been produced by those causes.

Such would practically appear to be the principal indications that in these cases admit of being acted upon, until the operation of the infectious cause shall have worn itself out, or induced positive exhausting effects, when, under both of which circumstances, the tone and power of the system must be supported by the means already pointed out in the treatment of the previous forms of this fever.

To fulfil the first indications the bowels must be cleared from accumulations or irritating sordes, by calomel and rhubarb, or calomel and castor oil, and afterwards alterative doses of calomel and antimony, or *pil. hydr.*, or *hydr. c. creta* and *ipecacuanha* should be given every three, four, or six hours,

guided by the inferences drawn from the state of the constitution; and the functions of the bowels excited or controlled according to circumstances; which plan must be pursued until a resolution of the symptoms shall have taken place, or such superadded affections or sinking of the system as shall require the aid of additional resources for those particular states, or for the support of the vital powers, amongst which it is probable the use of the warm bath would be found an important remedy.

REMARKS.—The object first proposed, of submitting to the profession a theoretical and practical statement of the phenomena and treatment of typhus being now completed, it is necessary to apologise for its being brought forward in a less perfect state than was originally intended; which has been occasioned by more than one cause, viz. partly from illness, and partly from interruptions of a private and unforeseen nature; but having commenced the publication, it was thought better to continue the connexion of the subject, so that it should contain the leading principles proposed to be recommended, than to postpone the undertaking for an uncertain and probably an extended period.

Although the theory and practice is not professed to be new, still it is hoped that in many respects the principles of the one are rendered more strikingly in accordance with the other, than is to be found in most of the writings that have been published on the same subject, by which the theoretical explanations of the different phenomena as they arise, from the first impression of the exciting cause to the full development of the disease, and its subsequent morbid effects on the system, are so clearly arranged in succession of cause and effect, that the young practitioner, being acquainted with the common principles of diseased actions, will find that in following the theoretical history, he is at the same time put in possession of a sound practical guide to the treatment. He will also see, that notwithstanding the powerful influence which may be effected over disease by the well-directed application of remedial measures, that the cure of diseases must be ultimately performed by the operations and resources of nature; as, when unassisted by the restorative powers of the "vis

medicatrix naturæ," our efforts will for the most part be unsuccessful.—"ut pote quum repugnante naturâ, nihil medicina proficiat."

Cheltenham, June 2, 1831.

DISPENSARY REPORTS.

By JOHN BURNE, M.D.

Physician to the Public Dispensary, Chancery-Lane.

The present Influenza.

A DISORDER, according exactly with the *tussis epidemica* of Sydenham, and the influenza of later authors, has prevailed epidemically for the last two weeks in this metropolis, affecting all ages, and supervening without any assignable cause. Of seventy patients who presented themselves at the Public Dispensary on Thursday, the 23d inst. more than one-half were suffering from the influenza.

The influenza may be said to centre in the chest, although the whole body is affected by it—the head particularly. When at its height it consists in a severe, hard, harsh, dry cough, recurring more or less in paroxysms, with great soreness behind the sternum, or a fixed pain on one side of it. The whole mucous lining of the throat, nares, and eyes, participates in the affection; the eyes being vascular, the nose stuffed, and the throat slightly sore. The head, too, is heavy and painful, and is jarred distressingly by the paroxysms of coughing, which gives the sensation as if the head was splitting. Withal, there is an unusual languor and debility, disproportionate to the local affection. The skin is generally very hot, and at the same time chilliness is felt on exposure to a current of air; the tongue is foul, the taste impaired, and the appetite gone; the urine is scanty and high-coloured, and there is a great and general malaise. The pulse is accelerated and increased in volume and force, yet it is by no means full or strong.

The attack commences with a sense of rawness, with irritation, and at the same time constriction, in the trachea, extending downwards to the chest, which provokes a cough of the charac-

ter above described; in addition to which is a heaviness of the head and dulness of the sensorial powers, with great bodily languor. The eyes soon feel stiff and weak, the nares dry and stuffed, and the throat rather full and sore. There is also this circumstance peculiar in the attack—namely, that the patient is not sensible of having taken cold, nor of any cause that can have produced his illness. The invasion does not depend on the usual exciting cause, cold, but must be considered spontaneous. Some persons, it is true, date the attack from a particular chill or exposure, but this is rare, compared with the number affected.

The influenza generally goes off with an abundant nocturnal perspiration, about the third or fourth day, and with a considerable discharge from the nostrils; but not by an abundant expectoration, the cough continuing nearly dry to the last, and there being only a little thick tenacious expectoration, which is detached with difficulty. Cases of this description, in which the pneumonic signs are severe, require the antiphlogistic treatment of blood-letting and antimony; but I have not been induced to bleed largely, on account of the great depression of the strength and dulness of the sensorial powers; nor have I, in any instance, had occasion to draw blood a second time. I have found the abstraction of eight, ten, or twelve ounces of blood sufficient, in the worst cases, to mitigate the severe symptoms immediately, and, with the assistance of the tartarized antimony and the tinctura camphoræ comp. and a blister or warm plaister, to remove them altogether in a few days; leaving the patient, however, weak and languid.

In the milder cases of the influenza the pneumonic symptoms are less urgent, while the pain and heaviness of the head, with the depression of strength and dulness of the sensorial powers, is greater than in the description above given. Indeed many of these patients present the aspect of persons attacked with the adynamic fever, so much are the vital powers depressed. The pneumonic symptoms, in these milder cases, consisting of a tickling sensation in the trachea, with a dry troublesome cough, are relieved by saline medicines, and the compound tincture of camphor and warm plaisters to the chest; but so prominent is the prostration of the powers

of the muscular and nervous systems, that I have, in many instances, been obliged to commence at once with the carbonate of ammonia, which has been followed by the best effects. With this various treatment, adapted to the peculiarities of the case, the patients have all done well.

CASE I.—A young man, about 22 years of age, presented himself at the dispensary on Monday, the 19th instant. He complained of a sense of rawness and irritation in the trachea, with a dry and rather harsh cough, recurring by fits; his eyes were very vascular, but dull and heavy; his nares felt stuffed; his skin was dry and hot, the tongue foul, the appetite gone, and the urine scanty and high coloured: his head, also, was heavy and painful. The most prominent feature, however, was a very great muscular debility and dulness of the sensorial powers, which deprived his face of expression, and himself almost of the power of supporting his body. The character of the febrile movement was markedly adynamic. I directed a warm plaister to be applied to the chest, and one-third of a drachm of the liq. ammon. subcarb. to be taken every four hours, with 20 drops of the sp. lavend. comp. in peppermint water. By this treatment he improved steadily, the cough abated gradually, the headache and heaviness diminished, and his strength began to return: he is now convalescent.

CASE II.—On the 23d instant, early in the morning, I was called in haste to visit a medical friend, who, although rather subject to colds, felt himself now unusually ill. He was lying in bed distressed by a hard, harsh, dry cough, which jarred his head excessively, as well as aggravated a fixed pain on the right of the sternum. The cough recurred in paroxysms, during which he suffered more from its effect upon the head than upon the chest. He had, in addition, considerable pain in the head, with depression of strength and spirits, believing himself to be very ill, and having feelings of apprehension which he had not experienced on other occasions. The pulse was accelerated and somewhat increased in force and volume, but it was neither full nor strong; the tongue was foul, the skin hot: he was restless, and had been indisposed for two or three days with pain in the head and wandering pains about the chest,

but none fixed till now. He was bled immediately to 12 ounces, and began to take one-sixth of a grain of the antim. tartarizat. every two hours, with 20 drops of the tinct. camph. c. By the evening he was much relieved; the severity of the pneumonic signs was checked by the loss of blood, and effectually relieved as soon as the antimony produced nausea, which happened in a few hours, his stomach being easily acted upon by that remedy. Still, however, he felt ill at ease: his head was light, from the loss of blood; he was weak, and anxious about himself. The antimony was discontinued; and after having passed a tranquil and refreshing night, he was next day in a more comfortable state, and free from apprehension;—from this time he has recovered rapidly.

It appears that an influenza of the same character exactly has recently prevailed at Paris; and there can be no doubt that the complaints of this spring, as well as of last year, have had many epidemic peculiarities, depending probably on atmospheric influence. During the raging of the cholera on the continent last year, there occurred at the dispensary a great number of cases of dysenteric diarrhoea and cholera, which had so decidedly an epidemic character that I believed them to be produced by the same causes which were in operation on the continent, and as these cases are again beginning to appear, I will forward an account of them, and beg the favour of the Editor to insert it in the Gazette of next week.

London, 24, Spring-Gardens,
June 27, 1831.

EXAMINATION AT APOTHECARIES' HALL.

To the Editor of the London Medical Gazette.

SIR,

I AM reluctantly induced to trespass on your time, and the occupation of your valuable columns, with some observations upon the nature of the examinations at Apothecaries' Hall, and the mode in which they are conducted. These have been elicited by the recent

rejection of two candidates, for deficiency in minute anatomical knowledge, under the same examiner, (for whom, individually, I entertain great respect, as well as for the whole Court of which he is a member) and under these circumstances. After having undergone the severe scrutiny—I say severe, for at the present day it is known to be such—is Latin, Botany, Chemistry, Materia Medica, and Practice of Physic, which subjects in each instance occupied *above two hours*, to the entire satisfaction of the examiner himself, and the others at the same table, they passed to the last and remaining topic of anatomy. Both the candidates were, to my own knowledge, well acquainted with general, and more particularly so with visceral anatomy, embracing the contents of the head, chest, and abdomen; which latter is generally, and I am prepared to maintain, properly considered to be the department wherein a particular knowledge is requisite for passing this Court, and so far as these cavities were touched upon the candidates were found perfectly competent. With this, however, the examiner was not satisfied, but brought them to the description of the subclavian and axillary arteries, and their branches. The latter were enumerated, but a minute account of their origin, course, and distribution was demanded, in which they failed, and consequently their certificates were refused. Now, sir, this seems to me to be straining the point too far in the examination for an apothecary, and the cases of the unsuccessful men appear very hard, and by no means discreditable to themselves. They little expected to be examined on such parts; otherwise they would of course have been prepared to meet the difficulty; and I will ask, how few would not break down in their situation, if minute descriptive and *surgical* (by custom so regarded) anatomy were required of them? It is some time since I obtained my license from the Court, but had I then been "given," as the phrase is, similar minute anatomical points, I should have been very much surprised, and cannot say that I should have been equal to the task of describing them in the manner that was judged necessary in these cases. If, indeed, an intimate knowledge of the branches of the subclavian and axillary trunks be demanded, I am unable to comprehend why the veriest Dublin

cruz, such as might be expected from a Harrison or a Cloquet, should not be proposed: for instance, the internal maxillary artery, the structure of the internal ear, and the most intricate interlacements of nerves, and their ganglionic ramifications, appear to me fully as requisite to be known by the *apothecary* as the parts above specified.

The examiner in question observed to one of the candidates that he considered himself authorized by the Court to place before him any anatomical question he might think proper. Be it so, for the sake of argument: but I respectfully put it to him, whether, in the practice of his profession, *as an apothecary*, he has ever found his knowledge of the branches, or even the trunk of the axillary artery, called into action? If he have, I venture to assert it is not what I can conceive *possible*—if he have not, the drift of this communication must be obvious to himself, should it perchance be directed to his attention, and to your readers. Sincerely do I approve of their examination in the other more important subjects of their ordeal, in which the qualifications of candidates have been so properly and liberally extended, but I think an acquaintance with *minute* anatomy is certainly beyond an apothecary's acquirements. If so rigorous a test be, however, persisted in, the fact should be generally known, as I feel convinced the failure of many meritorious young men, who are not at present aware of the extent to which their knowledge of anatomy might be explored, must be inevitable, with all the attendant feelings of disgrace and shame which would unexpectedly, and in my opinion, inconsistently with the nature of their examination, overwhelm their consciences.

The sentiments which I have here expressed are directed to the proper source with the greatest respect, and originate from no personal motive whatever, as one of the disappointed gentlemen is quite unknown to me, except by name. They have been previously set forth in the pages of the *Gazette*, which has cautioned the Worshipful Society against *doing too much*; and I, as a member of their own body, would conclude in pointing out for their correction what, in my humble judgment, I have deemed an inconsistency. With every apology for intruding myself, to the length I have gone, upon

your notice, and leaving it to your own discretion how to make use of my communication, or the substance of it, I beg to remain, sir,

Your very obedient servant,
A LICENTIATE.

London, June 18, 1881.

[The name and address of the writer of the above letter have been forwarded to us.—ED. GAZ.]

CHEMISTS AND DRUGGISTS.

To the Editor of the London Medical Gazette.

SIR,

THE accompanying lines have been hastily drawn up in consequence of an attack made by a "Member of the Profession," upon a class of society I consider undeserving the abuse it contains. As a constant reader of your journal from its earliest publication, I think I have collected sufficient of its spirit to be convinced it acknowledges the justice of the principle—"audi alteram partem."

That the chemist and druggist should occasionally prescribe those medicines of which he is supposed the mere vender, seem greatly to have excited the indignation of your correspondent, a "Member of the Profession." Though I might doubt or deny the assertion, I would not attempt the justification of those (if such there be) who so far forsake the beaten track as to place "the health, if not the lives," of their "dupes in actual jeopardy." But, sir, are they not amenable to the already existing law, to that law which has lately been enforced against Mr. Ryan? Moreover, I consider the difficulty no inconsiderable one, of separating from the sale of a drug occasional replies to questions bearing upon its medical qualities, involving from their very nature encroachments upon another's province; but I cannot conceive the injury sustained by the profession, owing to this "melancholy truth," so considerable, or of such a nature, as to warrant the abuse directed against a respectable class in society, neither uneducated nor uninformed, by this exclusive gentleman, "professional" or "otherwise." But, sir, why do the "public" listen to

our "ridiculous opinions." Unpossessed, I trust, of that knowledge which puffeth up, I will yet venture to ask, has the schoolmaster not been abroad? has there been no intellectual march? or are the chemists and druggists, as a body, to be deemed the most rearward in its progress? those alone from whom the leaden weight of ignorance remains unremoved? Time was, when the youthful members of the profession were not subjected to the present excellent examinations; and of these do they boast? or are we to conclude all without this test still groping in the thick darkness of intellectual error! Protected by legislative enactment, not less than by individual jealousy, the members of the profession (unless greedy indeed of gain) have little to fear from the advances of the chemist. May we not expect soon to hear of a warfare directed against the ancient order of matrons and nurses, lest they also should be deemed partakers of the "revenue?" Shame! what, I ask, becomes of the dignity of the profession, thus "frighted from their propriety," and endeavouring to conceal a love of lucre under the mask of sickly sentiment or overweening zeal? Let them look well to their own boundaries; let them attend to a suggestion in one of your late numbers—take down the "golden letters," and apply the golden rule, ere they "cry havoc" upon the borders of their territory; let them cultivate a more liberal policy, tending far more to their advancement in public opinion, as well in pecuniary consideration, than the paltry harbouring of envy, hatred, and malice. Truly, indeed, "the liberal soul deviseth liberal things, and by liberal things shall he stand." Craving pardon, sir, for this intrusion upon your valuable time, I beg to conclude with a recommendation to the individual "member," that he would pray for a portion of that "most excellent gift of charity," and to subscribe myself, your obedient servant, a constant reader, though

A "CHEMIST AND DRUGGIST."

June 18, 1881.

ON THE UTILITY OF STRYCHNIA IN CERTAIN FORMS OF AMAUROSIS.

By R. MIDDLEMORE, Esq.

Assistant Surgeon to the Birmingham Eye Infirmary.

It will be readily admitted that the term amaurosis comprises a variety of pathological conditions, not only most diversified in their seat, but various in their state; for instance, an accumulation of fluid in the infundibulum, producing pressure upon the optic nerve; or an alteration of the ossific aperture through which the optic nerve passes; or an atonic state of the retina, unattended with any organic alteration; or an increased fullness of its vessels from general plethora, have all been designated by the term amaurosis, whenever they have led to much diminution of the power of vision; yet nothing can be more different, either as regards the seat of the mischief, or the state of the parts affected, than these several morbid conditions. It is not, however, from an intention to demonstrate the necessity of adopting a more precise and definite term, for the designation of the disease in question, that I have alluded to, what appears to be a great defect in the name generally applied to these various conditions of morbid action or altered structure, but to point out the necessity of selecting that particular state of the system, or the retina, or other part of the nervous apparatus of the eye, leading to partial or total blindness, for the employment of a remedy which, on two former occasions, I ventured to recommend to the notice of the profession. It will be readily conceded, that on this circumstance depends the probable success or otherwise of the local application of strychnia in amaurosis; and, as I am well aware that its use is attended with annoyance to the patient, and trouble to the surgeon, and that on this account it is not likely to be had recourse to, unless under an impression of its great value; and as the first trial, if unattended with advantage, will in some instances lead to its discontinuance, I shall trespass for a short time upon your pages, in order to impress upon the serious attention of your readers, the description of amaurotic symptoms which have been present in those sub-

acts, in whom I have most advantageously had recourse to its assistance.

During the last six months I have received, from several medical friends, a request to take under my care persons suffering from amaurosis, for the express purpose of subjecting them to a trial of the local application of strychnia, but in nearly every case they have been very unsuitable subjects; and, in some instances, it would have been highly improper to have attempted its use. The last patient I saw was one of his description; he was an attorney's clerk, who had been accustomed to write for many hours by a strong gas-light; and he remarked, (which, by-the-by, is a very general observation), that he was compelled to increase the strength of the light until the flame was eventually of a very vivid description; the strength of light with which he could see extremely well, when he first commenced the burning of gas, afforded him, after a time, little more than an indistinct perception of surrounding objects, and he was consequently compelled to increase the power of the flame, as has been mentioned. In this way he continued sometimes writing three or four, at others, six or seven hours together, by the assistance of this immoderately augmented light; by this means an attack of sub-acute retinitis was induced, an attack neither so rapid in its progress, nor so obviously disorganizing in its effects as the acute retinitis, nor so tardy in its course as the chronic form of this disease. I did not see this patient until his vision was nearly destroyed, when an examination of the eye, and an investigation of the history of the case, assured me that it was quite unsuited to the advantageous employment of strychnia. Had the remedy been used in this case, it is quite obvious that the patient would have suffered the inconvenience of its application, without any chance of deriving the slightest benefit; and it is by no means improbable that it might have been discarded from the good opinion of the gentleman who had only been induced to try its powers in consequence of the recommendation of others; nothing, however, would have been more unfair than to have concluded from such a description of experience, even presuming the strychnia had been tried, that it had no influence upon the disease designated by that indefinite term amaurosis.

In nearly every instance in which I have employed the strychnia, locally, for the purpose of restoring lost, or improving impaired vision, other modes of treatment had been previously adopted, and the patients had been under the care of those who, from my knowledge of their skill and acquirements, would treat them in the most judicious manner according to the general rules of practice in similar cases, so that I have had the great satisfaction of proving most unequivocally the decided value of the remedy in question.

If a person be suffering from loss or diminution of the power of vision from an atonic state of the retina, or other part of the nervous apparatus of the eye, or of the system generally, the local use of strychnia (applied in the following manner) will be, in my opinion, the most likely means of removing the defect, more especially if it be of recent occurrence. But it will, in many instances, be found necessary to institute a most rigid examination, before deciding upon the necessity or propriety of the treatment: for instance, the history of the patient must be closely investigated, and the eye subjected to the most attentive examination; and if the result of this inquiry and examination lead to the opinion that the defect does depend on the atonic condition of one, or all the parts to which I have just alluded, he may, with safety, be subjected to the very tedious and somewhat painful plan of treatment it remains for me to explain; but it will be readily admitted that if this examination be not conducted in the most careful manner, it will be impossible to discriminate, with any approach to certainty, the particular conditions of the retina, and other parts of the nervous apparatus of the eye, productive of amaurosis, which admit of alleviation or removal; nor can the trial of strychnia, without such a preliminary investigation, be viewed as otherwise than a rash and criminal procedure; a procedure which is more likely to destroy the power of vision for ever, than to yield any prospect of relief. Having pointed out that condition of the retina, or other part of the nervous apparatus of the eye, or of the system, (which I have termed atonic), capable of being relieved by the local application of strychnia, it may be thought right to complete the treatment, it may be frequently necessary to combine with

this local remedy; but as my object is merely to recommend the employment of the more important remedy, and as the various tonics and stimulants, which it may often be advisable to use at the same time can be readily adapted to the circumstances of individual cases, and as they form but a very secondary and subordinate part of the treatment, I shall not extend my observations, nor trespass upon your pages, to attempt the supply of this trivial deficiency.

The following case not only illustrates the mode of using the strychnia, but explains the condition of retina producing amaurosis, which has appeared to me likely to be benefitted by its use, unless, indeed, it be admitted that a suspension of its action for a long period, induces some alteration of structure, not indicated by constitutional symptoms, nor evidenced by local changes, by which it is permanently unfitted to receive and obey the stimulus of light. A few weeks ago, I attended a Miss P. of this town, who had, many years since, been operated upon for cataract, by the late Mr. Saunders. She was about nine years old at the time of the operation, which was very well performed, if we may judge from the appearance of the eyes, which do not present any traces of inflammatory mischief, and are only to be distinguished from perfectly healthy organs, by the large size of the pupil, a rotatory motion of the eye-ball, and a small remnant of capsule at the side of the pupil: this girl is highly intelligent, and in a moderately good state of health, and, with the exception of the defects just mentioned, her eyes are perfectly natural and healthy in appearance, and yet she has never been able to distinguish the form, colour, or magnitude of surrounding objects, having merely a perception of light, and a capacity to distinguish its degrees, when varied from an extremely feeble to a very brilliant light; a power which she possessed, though to a less extent, prior to the performance of an operation. Considering the defect of vision to have arisen in consequence of permitting the retina to remain for so many years unimpressed by its natural stimulus, and that by exciting its sensibility, it might still be rendered obedient to the stimulus of light, I employed the strychnia in the following manner:—having placed a blister over each eye-brow, and afterwards cut away the raised cuticle, so

as to expose an extensive surface, which would be likely to prevent the frequent necessity of re-blistering the part, I sprinkled the strychnine upon the whole surface, commencing with the sixth of a grain upon each, and gradually augmenting the quantity until I was enabled to use a grain upon each side, at which time she had occasionally a much increased perception of light, with frequent scintillations; but, unfortunately, the remedy began to affect the head, producing so much uneasiness and nervous disturbance, that I did not judge it prudent to persevere in its use any longer, much less to increase the quantity to that extent which, in my opinion, was indispensable to success. In the course of the treatment, I was pleased to hear this patient complain of the sensation of scintillation, as, on former occasions, that symptom had been frequently followed by the most satisfactory result; and, although in this instance, I was unable to persevere as I could have wished, in consequence of the extreme head-ache and other symptoms, yet it is still hoped that, on some future occasion, she may be enabled to bear the requisite treatment, without a recurrence of these untoward symptoms.

There is one other circumstance which was remarked in this case, and which appears to me worthy of recording: when the blistered surface had healed in its circumference, I was compelled to place nearly the whole of the strychnia upon a very small space, indeed a great part of it was dusted upon, and immediately around, the situation of the supra-orbitary nerve; and it was observed that the remedy acted with greater advantage than when placed upon a larger extent of surface. It immediately occurred to me, that the nervous connexion subsisting between this branch and the nervous supply of the iris, afforded a satisfactory explanation of the circumstance. Acting upon this impression, I repeated this mode of application upon a patient soon afterwards, and instead of applying a long narrow blister over the whole eye-brow, and partly upon the temple, as on former occasions, I directed the lower border of the blistering plaister to be placed, as nearly as possible in, and just above, the situation of the supra-orbitary notch, desiring that it might not extend be-

and the outer edge of the eye-brow; and in this case also the advantage of omitting the application of the remedy was equally evident. As, however, the quantity it may be necessary to use, in order to produce the desired effect, will in some patients be considerable, and as we cannot calculate upon the absorption of a thick layer of powder, with the exquisite degree of rapidity, it will often be advisable to scatter it more extensively; bearing in mind, of course, that only as much of the strychnia must be placed in the situation we have considered to be that in which it acts most efficiently, as can be absorbed within the time allotted for a second application.

If, in the case of Miss P. the use of strychnia had been commenced soon after the failure of the operation of solution had occurred, there would have been every prospect of the recovery of a much greater degree of vision than he at present enjoys; but, as the retina had remained in an unexcited state for so many years, it was not probable that any treatment would restore its power; and it was only after an explanation to this effect; after having explained the very little chance of success the application of the strychnia afforded, in consequence of the long duration of blindness, that I consented to adopt the treatment she was desirous of undergoing.

The following brief directions will include all that I have hitherto found necessary to insure the full action of his remedy: place a narrow blister over each eye-brow, which must not extend beyond a line drawn upwards from the external canthus; when it has risen sufficiently, cut away all the cuticle, and apply, for half an hour, a piece of linen, to absorb the serum, which is apt to be discharged in large quantities, for a short time after the removal of a blister; then dust the remedy chiefly in the situation of the supra-orbital nerve, but not so thickly as to prevent the entire absorption of the whole layer of the powder, at the time of the second dressing, which should be, as nearly as possible, twenty-four hours afterwards; twenty-four hours between each dressing is a proper and necessary interval; cover the blistered surface with a piece of linen very thinly spread with Ung. Betacei, for if much greasy matter be mixed with the powder, it is less easily and quickly absorbed; but, unless a

little be applied, the linen adheres to the wound, and occasions great pain in its removal. Increase the dose of strychnia very gradually, until the state of vision is improved, or symptoms indicative of the injurious agency of the remedy occur. If there be much local pain excited by the application of the strychnia, dilute it with flour, or mix it with opium; and if that do not succeed, suspend its employment until the stomach and bowels be improved, by a plan of treatment instituted expressly for their benefit, and then resume its use; if severe pain in the head, convulsive muscular twitchings, great general nervous excitement, or other symptoms, denoting the injurious agency of the strychnia upon the constitution, supervene, and the condition of vision be not improved, it must be discontinued altogether; as it would appear probable that in such case it was not likely to exert a favourable influence upon the disease, at the same time, that from some peculiarity of constitution, it was calculated to do important general mischief.

The case of Miss P. is one, amongst others, which have fallen under my notice, strongly illustrating the propriety of the recommendation of the late Mr. Saunders, with regard to the early performance of an operation for the removal of congenital cataract. As it is impossible to conceive a greater argument in support of the opinions of that amiable man and excellent surgeon, upon this subject, than the remarks of Dr. Farre on the success of his (Mr. Saunders's) operations, performed upon children at various ages, I shall beg leave to make the following brief extract from them. The sensibility of the retina "in many of the cases cured at the ages of four years and under, could not be suppressed in children who had enjoyed vision from birth; but at eight years, and even earlier, the sense was evidently less active; at twelve, it was still more dull; and from the age of fifteen and upwards, it was generally very imperfect, and sometimes the mere perception of light remained*."

* Midland Medical and Surgical Reporter, May 1831.

TARTRITE OF IRON AND AMMONIA.

To the Editor of the London Medical Gazette.

SIR,

HAVING lately paid some attention to several of the combinations of tartaric acid with oxyde of iron and alkali, I beg leave to mention one or two salts but imperfectly known, which appear to me to supply what is yet a desideratum in pharmacy—namely, a soluble salt of iron of uniform composition, not decomposable by alkalis, nor depositing oxyde by keeping, and of no unpalatable taste. In a chemical point of view, too, some of these compound salts are not uninteresting.

It is well known to chemists, being, I believe, first noticed by Klaproth, (Essays, vol. ii. p. 108), that the presence of a certain proportion of tartaric acid in any of the acid solutions of iron entirely prevents the precipitation of the metallic oxyde by the addition of any alkali, pure or carbonated, and in any excess: so that, in fact, there is no method of extracting the oxyde of iron from these compounds, except by calcining the salt in a red heat, to destroy the vegetable acid, and then dissolving out the iron from the carbonaceous residue.

The salt which I principally wish to introduce to notice, is the *tartrite of iron and ammonia*, which is made by combining the *proto-tartrite of iron* (itself insoluble) with ammonia, which gives it solubility and all the other properties which may be required for its medicinal use.

When a bundle of fine iron-wire is digested with a warm solution of tartaric acid, hydrogen gas is soon given out; and after a while, the wire becomes coated with a grey crust of *proto-tartrite of iron*, which partially dissolves in the liquid, so long as there is much excess of acid, giving it a chalybeate taste. But as saturation advances the crust becomes less soluble, and closely adheres to the undissolved iron, so as to make the process of saturation intolerably tedious if left to itself. A little variety of management, therefore, is required, and this may be done in two ways, as follows:—

1. Put into a large iron ladle two ounces of tartaric acid, about as much

clean iron filings free from brass, and four ounces of water, and heat it over a fire. Sulphuretted hydrogen gas rises immediately; the mixture soon swells, froths, and thickens, with a slate-grey pasty mass, which begins to form, and the whole must be kept constantly stirred with a broad spatula from beginning to end. More water must be added, which should be no more than to prevent the materials from spirting out by the bubbles of gas, keeping the mixture thick enough to prevent the filings from sinking. In this way, when about twelve ounces of water have been expended, in half an hour the ladle will be filled with a slate-grey puffy mass, scarcely sour to the taste, which may now be emptied into an earthen mortar; and by standing a few hours in a warm place the acidity is entirely gone, and the mixture now consists of grey *proto-tartrite of iron*, mingled with the undissolved filings.

2. Another method, which takes longer time, but saves the wear of the iron ladle, is simply this:—Put into a large earthen mortar any quantity of tartaric acid, with two or three times its weight of iron filings; which, indeed, is much more than is wanted to saturate the acid; but the roughness of the filings is of essential use in mechanically separating the insoluble tartrite when rubbed with the pestle, and thus presenting clean surfaces to the acid. Add hot water, just enough to dissolve the acid, and set it in a warm place to digest. As before, sulphuretted hydrogen rises, together with that black oily fetid scum which always attends the solution of iron when this gas is evolved. In an hour or two some of the grey *proto-tartrite* is perceived, and the mass thickens and froths. Continue the digestion in a warm place, rubbing the materials very frequently, and adding just water enough to allow the gas to escape. In this way, with very little pains, the acid becomes saturated in about two days, all sourness disappears, and, as in the former instance, the mixture consists of the grey *prototartrite of iron*, with a large excess of undissolved filings.

Next, without drying the mixture, pour into the mortar some liquid caustic ammonia, the stronger the better, and mix with rubbing. The moment the ammonia touches the *prototartrite* it changes it to a deep olive green, and

the mass, by rubbing, stiffens to the consistence of printers' ink. On further dilution with water (cold distilled), and supersaturation with the alkali, the whole dissolves into a deep bottle-green liquid, leaving little else but the untouched iron filings; which last may be washed with water, dried, and set by for future use.

The green liquid is now a strong solution of ammoniacal prototartrite of iron, with some excess of alkali, and its taste is saline and chalybeate, but without any astringency; and it is by the repeated evaporation and solution of this liquid that the salt is obtained which I propose for use. Put the green liquid, with the washings, into a flat porcelain dish, and evaporate, with a moderate heat, to perfect dryness, but without scorching. As the excess of ammonia flies off the liquid loses its green hue, becomes of a deep red-brown, and yields a salt of the same colour. Redissolve this in water, with a little more ammonia, separate by subsidence and the filter a small portion of brown sediment, and once more evaporate the clear solution to perfect dryness, in a heat about equal to that of a pretty warm oven. Till absolutely dry, the salt is extremely tough and tenacious; but when no more moisture remains it is perfectly brittle, and separates from the vessel with extreme ease.

This salt, the *tartrite of ammonia and iron*, has now the following properties: It is in very shining, glossy, brittle fragments, of so deep a red as to appear black in mass, and looking not unlike crushed garnets, but without any definable crystalline texture. When a little is spread upon paper, in half a minute many of the smaller particles begin to split and fly asunder, like recently fused glass of borax. It is not deliquescent. It dissolves with the greatest ease in water, hot or cold, and almost to any extent, forming a deep red liquid, which yields the salt again on evaporation, unchanged, and without any farther deposition of oxide, and this for any number of times. But the most remarkable change that takes place is in the taste. Before evaporation, this was simply saline and chalybeate, but now it has become so strongly saccharine as to equal that of extract of liquorice, and is so powerful when in moderate dilution, as to cover almost every other flavour. Spirit of wine coagulates a strong solu-

tion of the salt, but it becomes clear again on dilution. The watery solution pretty soon becomes mouldy when kept by itself, and then it deposits much oxide of iron; but this change may be entirely prevented by adding from a sixth to an eighth of spirit of wine. I have now kept, for a considerable time, a solution of the salt (32 grains to the fluid ounce) in a mixture of seven parts of water and one of spirit of wine, without the smallest change.

This solution, which might be adopted for medicinal use, mixes without visible decomposition with all the alkalies, pure or carbonated, and in any excess; with most of the neutral salts used in medicine—sulphate of soda or of magnesia, for example; with the decoctum aloe c. and with the infusions of orange-peel, quassia, or camomile. The fixed alkalies, however, so far decompose it as to render the ammonia sensible to the taste, but the solution retains its clearness.

With regard to the chemical composition of this salt, it is somewhat complicated, and I have not been able to analyze it fully. It is composed of tartaric acid, ammonia, protoxide and peroxide of iron, and a good deal of saccharine matter. This last is doubtless formed at the expense of part of the tartar, and perhaps by the agency of the protoxide of iron, assisted by a heat above that of boiling water. Hence it is necessary, to form the sugar, that the solution should be fully dried, for the saccharine taste does not appear till then. Acetate of lead causes a copious separation of tartrite of lead, not white, as might be expected, but deeply tinged with oxide of iron, that falls with it. With regard to the state of oxidation of the iron, as it strikes an immediate black with galls, part of the metal must be peroxide, but certainly not the whole, for there is a compound of *per-tartrite* of iron and ammonia, which I shall presently describe, which differs essentially from this salt, and which may be converted into it by digestion with fresh iron filings. I know of no means of estimating the relative proportions of these two oxides in a compound like this, but doubtless it is due to the presence of the saccharine matter that the salt makes no farther progress in oxidation during an indefinite number of solutions and evaporations. The mere quantity of metal is easily obtained by calcination. When the dry salt is heated

with a spirit lamp on a thin platina shell, it first gives out much vapour of ammonia, with visible dark smoke; it then emits sparks till red hot, when it still retains its form, but with the loss of two-thirds of its weight, and becomes a dark glossy coal, strongly magnetic. By thus igniting 12.5 grains of the salt, I obtained, in two experiments, 4.45 of this magnetic coal, which was deflagrated with a pinch of nitre, dissolved in strong muriatic acid, recovered by ammonia, and gave 4.3 grains of dry red peroxide of iron. Hence we may conclude that 100 grains of the salt contain 20.08 grains of iron, which would make 30.96 of protoxide, or 34.4 of peroxide. Also, 100 parts of this salt contain as much metallic iron as 119 of crystallized sulphate of iron; and these proportions may be borne in mind in prescription for medicinal use.

On the average of several experiments, I find that 100 parts of crystallized acid of tartar yield from 156 to 160 of this tartrite of ammonia and iron.

It is not absolutely necessary that the ammonia be caustic in preparing this salt; the carbonate, I find, will answer very well, but it requires a longer digestion before the grey prototartrite will combine with sufficient ammonia to become entirely soluble. Similar triple salts might doubtless be made by saturating the prototartrite with potash or soda, but there is this advantage in the ammonia, that no nicety of proportion of it is required, as any excess flies off as the solution dries.

I shall now say a few words on the combination of tartaric acid with peroxide of iron and ammonia. When a small quantity of peroxide of iron, wet, and newly precipitated from its muriatic solution by ammonia, is thrown into a hot solution of tartaric acid, it soon dissolves into a red, acid, astringent liquid. More of the peroxide, however, causes most of what is dissolved to separate, and the whole becomes a reddish white subsalt. This, like the prototartrite, is readily made soluble by saturation with ammonia, and is not disturbed by any excess of alkali. When thoroughly dry, it becomes a very tough tenacious mass, totally different from the other in appearance, and extremely absorbent of the moisture of the air, though not entirely deliquescent. To the taste it is saline and chalybeate, but scarcely, if at all, saccharine. Its solution, boiled for

some time with iron filings, lets fall much oxide; and the clear liquor, by evaporation, passes into the state of the tartrite before described, with its distinguishing liquorice taste and glossy brittleness.

Many other mixtures still more complicated may be produced by taking a salt of iron already formed, adding tartaric acid, and then saturating the whole with ammonia. All these, if enough of the tartaric acid is present, remain undisturbed by excess of alkali. One compound alone I shall now notice, as I think that this also might be usefully employed in medicine—it is the *tartarized sulphate of iron and ammonia*.

Dissolve green sulphate of iron with half its weight of acid of tartar, in a little cold water; add liquid ammonia, which instantly makes it green and turbid, but the solution becomes quite clear when saturated with the alkali. Evaporate to dryness; redissolve with a little more ammonia, filter if required, and again dry. This forms a deep-red saline mass, readily and totally soluble in water. The taste is saline and chalybeate, but scarcely saccharine. The solution, in mere water, appears to keep for an indefinite time without the smallest change, the tartar being preserved by the well-known antiseptic power of the sulphate of iron. This mixes uniformly with alkalies and neutral salts, but is immediately curdled by spirit of wine. When dissolved in water, in the proportion of two or three grains to the ounce, and with a minute excess of soda, the taste is hardly perceptible. In this case also the iron is probably a mixture of the two oxydes. I find that 100 grains of clean sulphate of iron, besides losing its water of crystallization, acquire an increase of about twenty grains by this treatment; so that, in prescription, twelve grains of the dry tartarized sulphate of iron may be considered as containing ten grains of sulphate of iron, taking the latter in its usual crystallized state.

With this salt may be made a convenient *syrupus ferri*. Dissolve eight scruples of the above tartarized sulphate of iron in 2½ ounces of water; melt it in four ounces (Troy) of white sugar, and boil for a few minutes. This yields about five ounces of a brown clear syrup, strongly chalybeate, but not unpalatable when properly diluted; and it does not seem liable to ferment. One

fluid drachm of this syrup contains four grains of the tartarized sulphate, equal to $3\frac{1}{2}$ grains of sulphate of iron.

I have also made some *tartarized muriates of iron* in the same way, which have the same general properties, but do not yield results of any particular interest; and the pungent saline taste of the muriate of ammonia predominates so as to render them less palatable than the others.

I remain, sir,

Yours with respect,

C. R. AIKIN.

33, Great James-Street, Bedford-Row,
June 25, 1831.

MEDICAL GAZETTE.

Saturday, July 2, 1831.

"Licet omnibus, licet etiam mihi, dignitatem *Artis Medicæ* tueri; potestas modo venendi in publicum sit, dicendi periculum non recuso."—CICERO.

CHOLERA AT WARSAW—A NEW DESGENETTES.

News in abundance is daily flowing into Paris from the various parts of Polish Russia, where cholera is said to prevail; yet nobody can say that our neighbours are so very much the more enlightened for it. From Warsaw, particularly, much gossiping information comes. M. le docteur Foy is performing sundry hare-brained feats in that capital, to the great amazement of the contagionists: he has respired plentifully the breath of patients in cholera; he has tasted of the matters ejected from their stomachs; and finally, by way of *coup de grace*, has had himself regularly inoculated with the blood of a man labouring under the disease. How M. Desgenettes must smile at this feeble imitation of his "sublime experiment"! The professed intention of M. le docteur is, "to reassure the *morale* of the citizens, the soldiers, and all unbelieving physicians." What the consequences, however, will be to the valorous anti-contagionist, we have yet to learn: but our correspondents inform

us (by way of *bonne bouche*) that the newest therapeutic remedies employed by him (and he is of great weight with the French *savans*—at the head, we believe, of their medical staff at Warsaw), are *phosphorus* and the *alcoholic extract of nux vomica*.

INFLUENZA.

INFLUENZA, in a severe form, is at present prevailing extensively in London and some of the provincial towns. It commences like a common cold, but is soon discovered to be more serious; the constitutional disturbance being much more considerable than the catarrhal symptoms would seem to account for. Running at the nose and eyes, with racking pain over the brows, are the most frequent local affections; which, however, are often accompanied or succeeded by cough, and sometimes by nausea and an irritable state of the bowels. The feelings of languor, oppression, and discomfort, are always considerable, and sometimes very distressing; being occasionally attended with anxiety at the chest and tendency to faint. Some have severe muscular pains, of a rheumatic character, with tenderness of the integuments. The attacks generally last from two days to a week, passing off with perspiration, and, in the worst cases, leaving the patients considerably reduced.

The last epidemic of this description which was remarkable for its extent and severity, prevailed in 1803. It was said to have originated in China, to have travelled through Asia into Europe, and then, crossing the Atlantic, to have proceeded to America on the following year. It would be highly satisfactory to us—and, we doubt not, very gratifying to the public at large—if some of the medical "authorities" who have lately figured so advantageously in the public prints, and who, from their *ex-cathedra* manner of writing, we pre-

sume to be quite in the secret, would inform us whether the present be also an Asiatic importation; and whether it is to stand us in the stead of cholera? If so, we are sure their information will not be sneezed at even by those who are suffering from the influenza, maugre the interminable fits of sternutation which sometimes accompany it.

PARISIAN INTELLIGENCE.

The Concours—Prizes of the Académie.

THE spirit of discontent is strongly at work again in the French schools. The *concours*, which was sought after, some months ago, as the most desirable of things—won with the most unceasing exertion—and eried up with such triumphant anticipation of its certain efficacy in regenerating the faculty, has already, it seems, become the mockery and abomination of most of the profession in Paris. The common prediction now is, that it will kill the faculty, if it be not itself first killed; and *qu'elle meure* is the by-word, and the current sentence pronounced upon the concours. An ebullition of this feeling very recently took place upon the announcement of M. Bérard, aîné, as the successful candidate for the chair of Physiology. It is not a little curious that it was positively asserted, we believe full three months since, (we recollect perfectly that we noticed at the time in this journal what we thought the bold conjecture), that M. Bérard, *coute qui coute*, would prove to be the *favourite* in the contest, and would of course be elected the professor. Now if it should really turn out to be true that this gentleman has shown himself, in the course of his public examination, by no means a first-rate man—nor a second, third, or even a fourth-rate—then the charge of something rotten in the constitution of the French concours is unquestionably established, and the sooner the system is abolished the better.

The moment M. Bérard's name was announced, a torrent of hissings and hootings of the most deafening description was poured from all quarters of the amphitheatre of the Ecole de Médecine; and never, perhaps, was disapprobation so strongly expressed towards any measure enacted within those walls. Some of the younger auditors were, as usual on these occasions, particularly violent; one of them was observed to dart looks of defiance at the judges, and in loud and plain words to denounce their conduct as *infamous*. Matters, in short, are now arrived at that pitch with regard to the concours in the French metropolis, that the warmest advocates and agents for its late revival, are thoroughly disgusted with the monster they have helped into existence, and are become its bitterest and almost sworn foes. One cannot help being reminded by the whole affair of the fable of the frogs and king Log.

The Academy of Sciences have made some tardy, though judicious awards, within the last few days: in Medicine—

To M. Courtois, a prize of 6000 francs, for his discovery of iodine.—[It is now, we believe, bordering upon twenty years since iodine was discovered.]

To M. Lugol 6000 francs, for his application of iodine to the general treatment of scrofulous disorders.

To M. Coindet 4000 francs, for his having been the first to employ iodine in the treatment of glandular swellings.

In surgery:—

To M. Amussat 6000 francs, by way of encouragement, for his laborious researches on the torsion of arteries.

To M. Leroy d'Etiolles 6000 francs, for his enriching lithotritry with the three-branch forceps: "an instrument," says the report, "so truly valuable, that without it lithotritry would never have attained its present degree of perfection."

And to M. Felix Hatin 1000 francs, in some sort to defray his expenses, and to mark the Academy's satisfaction at his ingeniously-devised instrument for fixing ligatures on nasal polypi.

COLLEGE OF PHYSICIANS.

Monday, June 27th, 1831.

SIR H. HALFORD, PRESIDENT, IN THE CHAIR. THE last meeting of the season took place on Monday evening, on which occasion two papers were read, one of which we subjoin; the other, by Dr. Gregory, on the *Renewed Susceptibility of the Vaccine and Variolous Poisons*, we shall give next week.

An Account of an unusual distribution of the Abdominal Veins in a body examined by the late JAMES WILSON, F.R.S. Communicated by Dr. James Arthur Wilson.

Among the unpublished papers of the late Mr. Wilson was found that which follows. It was drawn up at the request of Sir Joseph Bankes, for the purpose of laying before the Royal Society, but from accidental circumstances this intention was never carried into effect.

In examining the body of a female, about thirteen years of age, who had died in consequence of an injury of the head, Mr. Wilson observed a large swelling at the root of the mesentery, which was composed of several mesenteric glands in a scrofulous state. Upon cutting into this swelling, he perceived that a large vein passed from it directly into the vena cava; and a little farther examination proved this to be the vena portæ. No vein could be traced passing into the liver at the cavity of the porta. The right lobe of the liver was small in proportion to the size of the body, but the left was large, and the stomach adhered firmly to it; yet no veins could be seen entering the liver here, as might, perhaps, have been expected. The hepatic artery came off, in a distinct trunk, from the aorta, and ran directly into the liver: it was much larger than usual, but not so large as the vena portæ commonly is. The gall-bladder had a natural appearance, and contained more than half an ounce of yellow fluid, having the characters of bile. The ducts had their usual distribution. The spleen was small, and rather hard. The body was somewhat emaciated, but not more than the strongly-marked scrofulous state seemed to explain.

REPORTS OF CASES OCCURRING AT PUBLIC INSTITUTIONS.

HOTEL DIEU.

Fatality of Uterine Phlebitis—Great importance of separating the Patients in the Wards of a Lying-in Hospital.

UTERINE phlebitis has been alarmingly frequent of late in the ward St. Benjamin. It has generally come on violently, proceeded rapidly, and invariably been fatal in every instance, and under every variety of treatment. It is, however, now put beyond a doubt that the recent quick changes in the weather, with respect to temperature and humidity, have had much to do with it. With this impression, M. Caillard determined to take special care that his patients should enjoy a wholesome atmosphere; and, for this purpose, caused them to be regularly transferred to another apartment on the fourth day after delivery: thus keeping no more than eight or ten patients in the lying-in room, where there used, until now, to be about fourteen together at a time. Seventy-seven women have since been delivered, of whom but one has fallen a victim to phlebitis. Two others, on whom the forceps had to be employed, were, one of them attacked with metritis, the other with metro-peritonitis; but, under the influence of antiphlogistic treatment, left the hospital as well and as healthy as the rest. The following table will shew the mortality, positive and comparative, of the several months since the beginning of the year. It should first, however, be mentioned, that the hygienic treatment above alluded to, was not adopted till the 22d of March.

General Result, from January 1, 1831, to May 23.

Patients received into the ward
St. Benjamin..... 190
Number of those who died 17
January.—Received, 45—Died, 4.
February.—Received, 38—Died, 6.
March (to the 20th).—Received, 30—
Died, 6.

From March 20th to May 23d.

Received 77—Died 1.

Thus the mortality, which, in the first three months of the year, was one in about seven, became in the last

two months, under the new system of treatment, on hygienic principles, one in seventy-seven.

With regard to the treatment most advisable in uterine phlebitis, it must be confessed that none in particular has been found efficacious, or deserving of preference. Bleeding, both local and general, though employed at an early stage, has been proved unsuccessful; and the antiphlogistic method has been found, in numerous cases, rather to hasten than retard the fatal result; though the bleeding, in fact, ought rather to have facilitated the transmission of purulent matter from the organ affected into the general circulation, and thus have materially served the patient. Nor did laxatives, mercurial frictions, or vesications, prove in the least more beneficial than the means just mentioned. The day may come, probably, when some specific may be discovered that may neutralize the deleterious effects of pus on the animal economy; but, in the present state of medical science, *hygiène* alone holds out any hope of success for the prevention of this terrible disorder. These remarks apply also to the inflammation of veins which follows surgical operations, and which proves so often fatal. It should, however, be added, that M. Sanson, in cases of the latter sort, has experienced the best effects from the employment of tartar emetic—effects which place in a still more satisfactory point of view the excellence of that heroic remedy; though they require some little additional trial, in the crucible of experience, before they can be quite confidently relied on.

M. SANSON'S PRACTICE.

Phlebitis after Venesection—Severe general Symptoms—Employment of Tartar Emetic in large doses—Cure.

A paviour, 36 years of age, a tall but feeble looking man, was taken into the ward Ste. Jeanne on the 20th of April last, under M. Sanson. He had been affected with a violent pleurisy, under which he laboured for eighteen days, and for which he was bled in the left arm. The bleeding had the desired effect; but in three days inflammation of the arm came on, apparently in consequence of the puncture made by the lancet in the median-basilic vein. Leeches were twice applied to the part

affected, and along the track of the vein; and after the leeches, cataplasms; but all in vain: the local symptoms became more serious, and on the fifth day the constitutional disturbance was so great that the man was obliged to be taken into the hospital. Besides the tumefaction of the subcutaneous cellular tissue, it was easy to feel along the course of the vein several little collections of matter. The most excruciating pain, too, was felt by the patient in the armpit of the affected side. The limb had acquired a stiffness, and an extreme sensibility. And among the general symptoms were horripilation, fever, headache, inexpressible uneasiness, and a troublesome cough, which seemed to proceed from disorder of the thoracic viscera. *Five and twenty leeches*, after which *emollient fomentations* to the whole of the arm. *Laxative drink*. The next day, and the next, the same remedies were employed; but the general symptoms, so far from abating, became so serious by the fourth day that M. Sanson thought himself bound to have recourse to that remedy which he has so often used with so much advantage; he ordered *Tartar Emetic*, *eight grains* to the dose, given in *four ounces* of julep, (*infusion de tilleul adalcorée*.) The patient took the whole of the mixture in the course of the day without experiencing any nausea; and the next day it was repeated. From that time every threatening symptom disappeared, and along with the constitutional affections, the local ones: the collections of purulent matter resolved rapidly, and the patient had no longer any pretext for confinement to his bed, except some little annoyance from the respiratory organs. On the 16th of May he left the hospital quite convalescent.—*Gazette des Hôpitaux*.

MEATH HOSPITAL, DUBLIN.

Cases treated by Mr. Hamilton under the superintendence of Dr. Graves; with Mr. Hamilton's remarks.

PERIOSTITIS AFTER MERCURY.

Efficacy of Sarsaparilla and Nitric Acid.

RICHARD MOSS, *etat.* 42, weaver, received into the hospital November 17, 1830. Has pains in two different places on the spine of the left scapula—on the internal edge of the biceps and on the sternum,—all which parts

are acutely tender on pressure; along with these, he is troubled with weakness in the loins. The pains begin to be more severe about seven o'clock in the evening, when a pain, darting from the scapula along the side of neck, behind the ears, and across the temple and forehead, comes on—so intense as to cause his eyes to overflow with water. He continues in this state till six o'clock in the morning, when he gets some sleep: during the greater part of the night he is bathed in profuse perspiration. His history is as follows:—21 years since he was twice salivated for primary and secondary symptoms, and continued well in every respect till he contracted gonorrhœa about a year ago: this was cured by linseed-tea, &c. About three months since a sore appeared on the penis, for which he was salivated; the sore however continuing, he rubbed in mercurial ointment till his mouth became affected. While in this state he caught cold; pains came on, which gradually increased in severity up to the present time. General health good, bowels rather confined, pulse slow and compressible.

He was put on the decoct. sarsap. and nitric acid; warm bath, and eighteen leeches to the different painful parts.

He continued steadily in the use of the decoction, with an occasional warm bath; and on any increase in the pain of the affected parts, leeches were applied with invariable relief. The sweating continued till the last. On the 27th, ten days after admission, having no pain any where, he was dismissed cured.

ARTHRITIS AND SCIATICA.

Acupuncture employed with complete success.

Pat. Rosseter, ætat. 30, labourer, taken into the hospital November 30th, 1830; complains of pain on motion, and stiffness of both arms and wrists, not very severe, nor very tender on pressure; also severe pain, on motion, a little behind and above the left hip-joint. He walks lamely and with difficulty, not being able to move the thigh, or put his foot firmly to the ground, without great pain. The knees are slightly stiff and painful. None of these parts are red or swollen, and do not give pain while the man remains at rest. They are not worse at night. He attributes them to cold caught from exposure while in a profuse sweat, after a hard day's work, six weeks ago. At first a chilliness came on, and continued for a week, when the shoulders and arms became affected, and for a short time the front of the chest very severely. The pains were erratic, but did not attack the hip or knees till ten days since. Since this attack he sweats often and feels chilly. Bowels regular; appetite and sleep good; pulse full and regular; urine clear, and deposits no sediment.

3d.—In addition to his other symptoms a slight attack of pleurodyny.

R Vinum Sem. Colchici, 3ss.

Magnesie, gr. x.

Gutta Nig. gt. viij.

Aqua Cinnam. ʒj. M. sumat ter in die.

Hir. vi. lateri; *Acupuncture* at the affected part of left hip.

4th.—The needle was pushed in, with considerable pain to the patient, up to the eye in an obliquely-horizontal direction, a few inches above and behind the trochanter, about where the sciatic nerve leaves the pelvis. It was withdrawn after being in twenty-four hours. While in, the part felt sore. Though watched some minutes after its insertion, I could not perceive any action to be produced; the patient himself observed, that he felt it moved. He considers that it has done him good, the pain and tenderness being considerably lessened. His chief cause of complaint now is the left wrist, which is stiff and painful; bowels confined; urine high-coloured, but clear.

Rep. Mist. Colch.

He continued on the use of the colch.; sulph. mag. being added merely on one occasion, to open the bowels.

8th.—All his pains much less; and can walk with comparative ease and very little pain to what he had when he came into the hospital; is desirous of having another needle inserted, having experienced so much benefit from the first.

Cont. Colch.

9th.—Pain in the hip returning; the patient is very anxious to have another needle inserted. His other pains less.

Rep. Acupunct. et Mist. Colch.

11th.—The needle was withdrawn, leaving some degree of soreness; his other pains are so trifling that this is almost his only complaint.

Omit. Colch. et sumat Sulph. Quininae, gr. x.

13th.—Has now no pain any where, and walks extremely well, without the least stiffness or pain.

REMARKS.

With regard to the first case, that of periostitis, (by the way, I have thought it unnecessary to give two others of the same description which were under my care) little need be said. I have now seen a great number of nearly similar ones, under Dr. Graves, treated in much the same manner—that is to say, with Decoct. Sarsap. Nitric Acid, warm baths, and leeches for the local pains; and I do not recollect an instance where these failed in producing a cure.

The second case, however, that of Pat. Rosseter, affected with sciatica, deserves considerable attention, as presenting a

valuable addition to the many cases in which acupuncture has been successfully employed.

Although colchicum was taken during the use of the needles, it is evident very little influence can be attributed to this medicine in alleviating the pain in the hip. For though by its means the cure of the other pains was effected, this one, after having been greatly relieved by the first needle, began again to be severe, while the patient was still using colchicum; and a second needle was inserted, at the man's anxious request, with complete relief.

Besides this case, I have seen acupuncture successful in three others: the first that of Hogan, admitted Sept. 30th 1830. This man had laboured under inflammation of the anterior crural nerve for two years, and had undergone medical treatment without relief. Four needles were now inserted at intervals; and at the end of a week he was dismissed cured. It is proper to add, that for two days he used Dover's Powder and the warm bath. The second, John Darnford, under Mr. Jones's care, had laboured four months under pain of the hip, with some degree of lameness, and had used blisters and cupping without relief. The second day after admission, two needles having been inserted into the hip, all pain was removed from that part, and he could walk about perfectly well, his only complaint being a pain in the ankle. The last is that of James Toole, in whom one needle removed severe pain in the hip. This patient is under Mr. Bernard's care.

Much talent and ingenuity have been vainly exercised to discover the *modus operandi* of the needle while in the living fibre; any attempt, therefore, on my part, could only end in idle speculation. I trust, however, I shall be excused for venturing to offer a few remarks of a more practical nature; first, on the best manner of inserting the needles; secondly, on the number that should be employed, and the length of time they are to be left in; and thirdly, on those cases of a rheumatic character in which they are likely to be most beneficial.

1st. It may be observed, that of the above four cases, the two last were much the most striking: the cure occupying only two days in the cases of Darnford and Toole. Many reasons might be brought forward as likely to account for this: the circumstances of the cases, &c. I am inclined, however, to attribute the speedy success of the remedy in a great measure to the different manner in which the needles were inserted. In Darnford's case, Dr. Graves desired the direction of the second needle to be less horizontal, and the next day all pain was removed. In Toole's case, the needle used was so long, and the direction such, as to render it probable that the sciatic nerve was pierced (which Cloquet, I understand, for I could not get his

book, considers desirable); the relief was even more speedy.

In Dr. Renton's hands, acupuncture has been eminently successful, instantaneous cures having been effected in many cases of long standing and severity, and which had resisted all the other remedies employed. It is difficult to collect from his paper in the Edinburgh Med. and Surg. Journal the precise manner in which he performed the operation. The direction of the needle, however, appears to have been perpendicular, or nearly so, as he lays great stress on the piercing of the muscular fibre, and passes the needle, not up to the eye, but only to the depth of an inch, or an inch and a half, which, were the direction nearly horizontal, would scarcely be deep enough to attain his object. This much is certain, that it was done with a gentle rotatory motion, nor was any pain produced by the insertion of so many as ten needles.

Wishing to satisfy myself on this last head—the absence of pain—I inserted a needle into the centre of the calf of my leg, with a rotatory motion firmly pressing on the top, to about the depth of an inch and a half, the direction being exactly perpendicular. No pain was felt; the only feeling being one of great itching. What is curious is, that the needle, after having been in a minute, moved in a circular direction on its own axis; and a numb aching sensation was experienced. It was only left in a couple of minutes, and then withdrawn with some pain and difficulty, as if it had been firmly grasped by the muscular fibres. The leg was the same after as before, and the place of the puncture discovered with difficulty. Now, as pain has not been proved to be necessary to the efficacy of acupuncture, but will often be a great obstacle to its use, in cases where it would be likely to prove a safe, speedy, and efficacious remedy, the insertion of the needle by a rotatory motion—drilling, as it were—being unattended by any pain, must be considered preferable to thrusting it in, a mode which, from Pat. Rosseter's case, we may conceive to be a very painful operation. Dr. Renton's cases, along with the two above mentioned, would also go far to prove, that the more perpendicular the direction the better, in which case, too, the depth ought to be from an inch to an inch and a half.

With regard to the second point, the number of needles, and the time they are to remain in, there exists great difference of opinion. It is natural to suppose, that if one needle produces any effect, a more powerful one will be produced by many, which is in a great measure confirmed by the great success obtained by Dr. Renton, who used as many as ten in some instances, divided between the hip, thigh, and leg. Dr. Elliotson also uses a considerable number. The former gentleman only allowed them to remain in five or ten minutes; and how he succeeded has

been already mentioned. On the other hand, in the Meath, they are left in twenty-four hours; and Dr. Elliotson, in one of his clinical lectures, observes that "if needles be merely thrust in, and allowed to remain only a short time, they will in general not be found of much service; they should be left in at least two hours." It is not easy to reconcile these differences. Most probably more depends on the manner of performing acupuncture than on anything else, that the shorter time they are in the benefit should prove to be the greater. If the manner be good, it very likely matters little whether the needles remain in five minutes, or twenty-four hours, as far as the effect is concerned; but it is of great consequence as regards the patient's comfort, who would no doubt sleep better without, than with, nine or ten needles sticking in his body, setting aside the soreness which usually remains after a needle has been in so long. Dr. Elliotson, in spite of having discovered the value of leaving in needles long, appears in some cases to have had more perseverance than success, as he says, "I once ordered them daily for nine days before I succeeded." If this, and some other cases given by Dr. Elliotson, are compared with Dr. Renton's, it will be apparent that the remedy must have been differently applied. If performed in Dr. Renton's manner—that is, with half the needle out of the flesh, it is plain it would not be convenient to leave them in long; it is fortunate that there is no necessity, five or ten minutes having proved sufficient.

Lastly, Dr. Elliotson, in considering the cases most likely to be benefitted by acupuncture, divides rheumatism into that attended with a sense of heat, and aggravated by its application; and that in which there is a feeling of coldness, the pain being relieved by warmth. The first of these he judges not likely to be benefitted by the use of needles, but in the latter he thinks they will be found to prove very serviceable. But this distinction does not appear to have been acted on by Dr. Renton, as the case of the young woman given by him proves; nor do I recollect it to have been mentioned by Dr. Graves. It is doubtful, therefore, how far it can be considered of importance; and it would probably be better to give the needles a fair trial in all cases of sciatica.

LONDON HOSPITAL.

Paraplegia from Cold—Recovery.

CASE I.—CAROLINE HANACRE, æt. 9, was brought to the London Hospital on the 18th April, 1831, as an out-patient, under the care of Dr. Macbraire. The mother reports, that about ten days ago, the child was out, exposed to the rain, and then sat in her wet clothes during school hours. She observed in a day or two afterwards some peculiarity in her gait, (a dragging of one of the limbs),

and the day following the child was totally unable to move it, and soon after she lost all power in the other limb also. The sensation is perfect, and the paralysis is confined solely to the lower extremities. She makes no other complaint.

Admovt. Vesic. Amp. Spinae Dorsi.

Pil. Hydrarg. gr. v. Ext. Hyosc. gr. iij. nocte manequæ.

Liniment Ammonia, cruribus infric.

21st.—The mother reports that the child is better, and that she can move her limbs a little as she lies in bed.

Cont. Med.

Admov. Vesic. Spinae Dorsi.

24th.—The motion of the limbs is now nearly restored; the child can walk about the room.

Cont. Med. et Liniment Ammonia.

May 2d.—The child has walked to-day to the hospital, but feels a little weak in the limbs.

Cont. Med. et Liniment. Decoct. Cinchonæ, ter die.

16th.—The child has continued to use the same medicine from the date of last report, and is now discharged perfectly well.

Epilepsy cured by Arsenic.

CASE II.—James Coke, aged 18, of a spare make and dark complexion, was admitted as an out-patient at the London Hospital, under the care of Dr. Macbraire.

He reports that he has been subject to epileptic fits for the last two years; they occur generally about once every fortnight, and come on without any previous warning; they continue about the space of twenty minutes; when they cease he falls asleep; and on waking, has no unpleasant feeling except a slight giddiness. During the intervals of the attacks, he feels quite well. He can assign no cause for his affection, but says that his father had been the subject of similar fits. Appetite good; no headache; bowels confined.

Ext. Colocyth. Comp. gr. x. om. noc.

Haust. Cath. o. m. si opus sit.

On his applying again at the hospital, he states that the fits come on as formerly, about once every two weeks, but that they are not so severe—they are not preceded by any sensation of an aura. As this treatment, after being persevered in, did not produce any decided effect, he was ordered to take one drachm of the carbonate of iron three times a day, which was gradually increased until he took as much as six drachms three times a day. The epileptic fits, although of shorter duration than formerly, and occurring sometimes only once in three weeks, yet did not yield to this valuable remedy.

On the 28th of March he was ordered to take ℥iij. of the liquor arsenicalis, three times a day. On the subsequent days of attendance, he reported that he had no return

valuable addition
acupuncture
employed.

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REPORTS OF CASES OCCURRING AT PUBLIC INSTITUTIONS.
In the case of the patient, who was admitted to the case on the 10th of May, he was discharged on the 10th of May, having been cured of the disease. The patient was discharged on the 10th of May, having been cured of the disease. The patient was discharged on the 10th of May, having been cured of the disease.

Case III.—W. Wood, et. 24,
March 30th, 1831.—W. Wood, et. 24,
admitted into the London Hospital this day;
states that he has been for some time out of
work, and living scantily—sometimes even
two days without food; was exposed to cold
a week ago. Soon afterwards he was at-
tacked with rigors, experienced difficulty in
swallowing, and sore throat; his tongue also
swelled greatly. He yesterday applied at
the Eastern Dispensary; but to-day, getting
hourly worse, he came to the hospital. On
his arrival his mouth was half open; he was
unable to close it; his saliva was constantly
dropping. Tongue very much swelled, hard,
and painful, nearly filling the mouth; breath-
ing laborious and wheezing. He could
scarcely articulate, and with the utmost
difficulty could swallow fluids; submaxil-
lary glands enlarged and tender; bowels
costive; headache; fever.

Cal. c. Rho. gr. xxx. statim. Hirud. xx.
lingue. Baln. tepid. Haust. Aperients
Vespere, si opus sit. Mist. Salin. c.
Liq. Ant. Part. 3ss. sextis horis.

31st.—Very much relieved; fifteen
leeches took on the tongue, the rest were
applied to the chin. Tongue much dimi-
nished, softer; less painful, moist; he
swallows better; can articulate tolerably
well; less headache; bowels freely opened;
slight mercurial factor; can close his mouth
better; pulse soft, 90; skin moist and cool;
breathing free.

Perstet.

April 2d.—Much the same; cannot more
than half open his mouth; speaks thickly,
like a person labouring under cynanche ton-
gillaris; copious ptyalism; tongue still
swelled, and harder than natural, indented
by the teeth; fetor still continues, but he
has not taken mercury except the dose men-
tioned above; bowels open; less fever.

11th.—Inflammation has greatly sub-
sided; can open his mouth as well as ever;
tongue its usual size and softness; cough
and headache gone; no fever; appetite in-
creases.

14th.—Has now got quite well, and is to
be discharged to-day.

Case IV.—Sloughing Ulcer, Warts, &c.

April 14th, 1831.—Thomas Hurrell, et.
23, light hair and eyes, of doughy com-
plexion, had suspicious connexion eleven
months ago; about twelve days after which
he perceived a purulent discharge from the
urethra, attended with some scalding on
micturition; the discharge stopped in about

seven weeks, and warts made their ap-
pearance around the corona glandis, which, in-
creasing in size, pressed upon the glans, in-
flamed the prepuce; they are most nume-
rous at the upper and right side. The blue
stone, and other stimulating applications,
were frequently applied to these, by which
the inflammation was increased; and about
eight weeks ago, a small superficial ulcer,
about the size of a pea, with smooth and
circular edge, made its appearance upon the
upper and right side of the glans; there ap-
peared also another, still more superficial,
and not much larger, close to the orifice of
the urethra. The black wash was applied,
and mercury given, without producing ptya-
lism. In about a fortnight the ulcer had
spread a little, both in depth and circum-
ference, and was pressed upon by the warts.
He was advised to rest; he had previously
walked a good deal; was bled to 3rij. and
applied a poultice; it was not, however, in
his power to rest; the sore is much larger,
deeper, in a sloughy state, with soft edges,
and has discharged a few drops of blood; no
pain or fever; is restless at nights; bowels
rather costive; the prepuce is much thick-
ened and inflamed; when drawn back, the
glans is pressed upon and swells; and when
drawn forwards, they press completely into
the ulcer.

Lotio. Plumb. P. Cath. P. Dov. gr. i.
nocte rest.

15th.—Two motions; slept well; was
feverish in the night; skin cool now; pulse
feeble, 96; tongue clean; thirst; ulcer
cleaner, but rather deeper, not extended,
smarted by wash, not otherwise painful; no
motion to-day.

Rept. Pulveres et Lotio.

16th.—Ulcers less deep, but extending
laterally; surface inflamed, livid, and
sloughy; skin hot and dry; pulse quick;
tongue clean; no motion; slept well; ad-
mitted into hospital to-day.

17th.—Ulcer deeper; warts sloughing;
less pain; some sleep; no motion; tongue
white; thirst.

18th.—Ulcer still sloughing; has much
extended, almost approaching the urethra;
no pain; less fever, bowels open.

Lotio nigra, Cal. gr. ij. Opii, gr. one-third,
ter. die.

19th.—Ulceration and sloughing com-
pletely stopped; wound much cleaner; no
pain; bowels open; skin hot.

22d.—Ulcer healing up.

NOTICE.

Received, through Dr. Conquest, five
guineas, for the family of the late Dr.
Nuttall.

W. WILSON, Printer, 57, Skinner-Street, LOND.

THE
LONDON MEDICAL GAZETTE,

BEING A
WEEKLY JOURNAL

OF
Medicine and the Collateral Sciences.

SATURDAY, JULY 9, 1831.

ILLUSTRATIONS
OF
DR. CORRIGAN'S THEORY
OF THE
MOTIONS AND SOUNDS OF THE
HEART.

BY DR. HAYCRAFT.

PART IV.

*On the Coincidence of the Pulse with
the Impulse at the Chest.*

WE now come to that part of our subject which was deferred in the last for want of room. It is the discussion of the question of the coincidence of the pulse with the impulse at the chest. This question seems to the talented and experienced Editor of the *Medico-Chirurgical Review*, to be of so much importance, that he states that "the pivot on which all his (Dr. Corrigan's) doctrines turn, is the question of the impulse of the heart against the side being consentaneous with the pulse or not?"

The reason why the question is thus supposed to hinge is, that as we believe the impulse at the side to be caused by the rush of blood into the *dilatating* ventricle, and as the pulse is allowed by all to be caused by its contraction, they should happen at different times, if our theory is true. On the other hand, the old theory supposes that both the pulse and impulse at the chest are occasioned by one cause—viz. the contraction of the ventricle; and therefore it cannot admit of any interval between them. If, therefore, it can be clearly shewn that there is an interval between the impulse and pulse, both cannot be attri-

buted to one cause—namely, the systole of the ventricle; and consequently the old theory would be nonsuited.

Both parties were at issue for some time on this question; till at length it seemed to be decided by all that the pulse at the wrist does actually occur after the beat of the heart. Thus the old doctrine seemed to have lost its only support, until Dr. Elliotson attempted to shew that the pulse at the wrist does not indicate the time of the pulse nearer the heart; "that when the pulse at the wrist follows the stroke of the heart, it does so after a very minute interval, such as may be explained by the distance of the radial artery from the heart. Moreover, when the pulse at the wrist is observed to follow the stroke of the heart, the pulse at the innominate (so much nearer the heart) may be found to precede that of the wrist, and to occur all but simultaneously with the heart's stroke; so that the relative distance of the parts explains the whole difficulty," &c. This objection appears to have been anticipated by Dr. Corrigan, who remarks, that "the arteries being always full, and the contained fluid being nearly incompressible, the impulse derived from the heart will be instantaneous in every part of the body." For the purpose, then, of testing this doctrine, the following experiments were made.

Experiment IX.—A syringe containing about one fluid ounce, which had a very free outlet, was attached to a portion of the intestines of a wild fowl; the attachment was made at the cloaca, by which means a freer passage was afforded to the fluid. To the other end of the intestine was attached a vertical tube about four feet high, the top of

which was provided with a small cistern containing water. The intestine itself was more than three feet long, and its diameter, at an average, about that of a small goose-quill. *The whole was accurately filled with water.* In this state of things, the reader will perceive that the tube must be completely full; the pressure of a column of water four feet high filling it to distention. Thus we have imitated the state of the arteries, which, as Dr. C. says, are always full. Having brought the two ends—the one attached to the syringe, the other to the vertical tube—side by side, pressure was made on the syringe, and the fore-finger applied to both ends of the pulsating tube: no interval could be detected between the two pulses. This operation was repeated many times, and it was found that, in every part of the pulsating tube, when either one or more fingers were applied, the pulsation was quite synchronous throughout, although the pulse at the distal end was somewhat *feebler* than that near the syringe. It was also uniformly observed that the pulse coincided with the beginning of the action of the piston.

Experiment X.—Is a repetition of the last experiment, with the exception that the tube containing the column of water, by which, in the former experiment, the intestine was kept distended, was removed, and the end secured by a ligature. In this state of things the tube was not full to distention. The piston was depressed as before; the pulse now was not consentaneous; a very distinct interval could be perceived between that close to the syringe and the distal parts; which interval of time increased with the distance. The tube, in this experiment, had a *visible* pulsation, which was not observed in the former one.

In these experiments we perceive that the state of a pulsating vessel, with relation to its fulness, will, as far as mechanical conditions operate, materially affect the coincidence of the pulsation in its different parts. Thus we find, in pulsating veins, that the pulsation is propagated, as it were, like a wave, from one part to the other. These veins, we suppose, are not full to distention; they for the most part, at least the larger ones, are nearly in the same mechanical state as our pulsating tube in the tenth experiment. Dr. Graves

shews, in his interesting lectures, that pulsating veins, if by a suitable pressure they become distended, will no longer pulsate.

To these experiments, however, it may be objected, that arteries are not inert tubes, and that therefore merely mechanical laws which may be founded on such experiments, will not apply to the arterial pulse. This objection, however plausible, may be met with the answer, *that we never perceive the vital powers counteract mechanical ones operating in the system, to the hindrance of its own functions*; which they would do in this case, should the pulse be retarded at the more distant parts of the arteries by their vital activity. However this may be, the inferences to be drawn from these experiments, although grounded on merely mechanical conditions, may very properly be opposed to the reasonings I have just referred to; which suppose that the interval which subsists between the radial pulse and parts nearer the heart, may be explained by the *distance* of the radial artery from the heart. This argument the reader will perceive to be founded on a mere mechanical condition, and therefore an answer to it, founded on experiments merely mechanical, ought not to be disallowed.

Mr. Spittal, in his *Treatise on Ascultation*, p. 99, in commenting on Dr. Corrigan's opinions on this subject, says, "The arguments of Dr. C. only apply to rigid tubes, where the incompressibility of fluids would produce the effect he has mentioned: but surely a fluid contained in an elastic tube is under very different circumstances; and the elasticity of the containing tube is quite equivalent to manifest incompressibility of the contained fluid, supposing that possible."

In this supposition, however ingenious, there is one oversight—namely, that, in the case of distended arteries, the *medium* by which the force of the heart is carried to the arteries is the contained fluid, which medium is nearly incompressible; therefore the force used will be propagated with almost infinite velocity. Should it be asked, what effect, then, will the elasticity of the arteries produce? the answer would be that, as the yielding of the arteries will require some force, the pulsations at the more distant parts of the artery will only be rendered less powerful—that?

the strength of the pulse of the more distal part will be that of the nearer part, minus the force required to dilate the coats of the portion of the artery intervening between the two parts, the friction, &c. This was fully exemplified in experiment 9, in which the pulse, although perfectly synchronous at the two extremities of the tube, was weaker at the more distal end.

Mr. Spittal has also experimented on the same subject. I shall extract his account of his experiment verbatim. See p. 103.

"The aorta and great vessels, down as far as the bifurcation of the popliteal artery on one side, were dissected out the day after death. All the branches of these vessels were afterwards tied, *except the two tibials and several of the intercostals*, which had been broken off. A short flexible tube was then attached to the arch of the aorta, and fitted to Read's syringe; with which water was thrown into the vessels by an assistant, while the following observations were made. One hand was applied to the commencement of the descending aorta, while the other was placed on the popliteal artery, just before its division. During the action of the syringe, the hands being thus applied, a distinct impulse was perceived *both by the eye and fingers*, but much more distinctly by the latter, at each jet of water thrown in. The impulse was perceived first by the fingers placed on the aorta, and immediately afterwards by those on the popliteal. The two impulses were distinctly non-synchronous, and this was more fully evident than in experiment 3. (An observation on the pulse of the temporal and tibial arteries in the living subject). "The vessels were kept continually full, the outlets for the fluid being few and small. The quantity of fluid thrown into the aorta by the syringe, was about an ounce at each injection; the left ventricle is supposed to throw in only a little more than this at each contraction. When the action of the syringe was rapid, the non-synchronism was with difficulty perceived."

The foregoing is an additional proof of the difficulty of experimenting so accurately as to afford just data on which to reason. The capital error in the above experiment is in the supposition that the arteries were full during the injection of the fluid. It appears that the two tibial and several intercos-

tal arteries were not tied. In this state of things, how was it possible to fill the arteries, in which there must have been a number of discharging orifices? There is also one fact mentioned which proves that the arteries were not full to distention—namely, the visible pulsation that was noticed. Arteries in their natural state of fulness do not visibly pulsate; and even veins which, in consequence of disease, have a visible pulsation, will (as has been remarked), if pressure is used so as to cause them to be filled with blood, cease to pulsate visibly. Thus also in experiment 10, in which the tube was designedly not filled with fluid, there was a visible pulsation; while, in experiment 9, where the tube was full to distention, there was none that was visible.

The fair inference, then, is, that Mr. Spittal's experiment is not a sufficient test of Dr. Corrigan's doctrine, which supposes the fulness of the arteries, such as always does exist in a healthy state, in consequence of their vital contractility enabling them to adapt themselves accurately to their contents, to be conditional to the simultaneousness of the pulse all over the body.

The most certain way to settle the point would, without doubt, be to examine the pulse in the *healthy subject*, at different distances from the heart. This I have often done, but I could never discover any want of synchronism. In repeating Mr. Spittal's experiment, No. 3, with great care, I find that the pulse of the posterior tibial artery, and that at the temporal, and even the carotid, are most exactly synchronous. This experience, however, does not seem to agree with that of some who are supposed to be equally capable of observing accurately; so that the matter is still at issue.

But even Dr. Elliotson, whose exactness in observing symptoms cannot be questioned, does not, I think, positively state that he has observed a want of coincidence in the pulse of the arteries at different distances from the heart, in the *healthy subject*: his reasons for a contrary opinion seem to be founded on the phenomena of disease, especially, as I have before observed, of the four cases of pulsating aneurisms of the ascending aorta, referred to in his Lumleyan lectures. But waving the objection of founding our notions of healthy actions on the phenomena of,

disease, we will again consider the four cases in question.

It is stated, that "if an artery is observed still nearer the heart than the innominate, no interval between its pulse and the stroke of the heart is perceptible. In four cases of aneurism of the ascending aorta, producing a strongly pulsating tumor to the right of the sternum, this and the heart, when the forefingers were placed on both, were felt, and by all seen to pulsate quite synchronously." This would, on first view, appear unanswerable; nevertheless, I have attempted, in the first part of this essay, to account for the pulsations of the aneurismal tumors by a supposition quite warranted by our theory—namely, that the rush of blood into the ventricle during its diastole, at the moment of the completion of the diastole—still retaining some of its momentum—will rush into the aorta; and having power sufficient to dilate the feebly resisting walls of an aneurism, would cause a pulsation which should be synchronous with the impulse at the chest, or nearly so, because it has the same cause—namely, the rush of blood into the ventricle. If this view of the subject be correct, it should follow, that if the tumors had been carefully examined for the purpose, there would have been observed at the termination of the visible pulsation of the tumors the proper stroke of the pulse in the tumor itself, which pulse should be synchronous with the pulse at the wrist. I have lately been attending two cases of pulsating arteries, which I will briefly relate, for the purpose of illustrating this point.

John Moon, aged 47.—Visible pulsation of the innominate and subclavian arteries. These arteries appear much dilated, and, at first view, would strike the observer as aneurismal. The visible pulsation coincides with the impulse at the chest—is followed immediately by the pulse at the wrist. There is also an aortic bellows-sound, exactly synchronous with the visible pulsation.

The reader will perceive that this case agrees with the cases of aneurism of the aorta in the most important particular—namely, in the coincidence of the visible arterial pulsation with the impulse at the chest; which has been considered as a proof of the identity of the cause producing both—viz. the systole of the ventricle. The following

facts, however, in continuation of the history, will shew that the visible pulsation of the innominate, &c. will not denote the time of the true pulse, nor therefore of the heart's contraction.

On applying the finger to the pulsating arteries, the proper stroke of the pulse was not felt till the termination of the visible pulsation. If the fingers are pressed on the heaving arteries, they are raised up with some force; and when the heaving is completed, the stroke of the pulse is felt, which stroke of the pulse at the innominate is distinctly felt after the stroke at the chest, and perfectly coincident with the pulse at the wrist.

Now, in the four cases of aneurism referred to, did the visible pulsations of the tumors, which coincided with the impulse at the chest, denote the time of the true pulse at the part? It appears that the visible pulsation of the innominate, &c. that I have given, did not indicate the time of the pulse; because the pulse in the very part was felt at its termination, or it might be said after it. The same fact most probably might have been observed in the four cases of aneurism that have been referred to.

The difficulty, and I confess it to be one, remains to account for the heaving of the tumors which takes place before the pulse of the same part; but if we admit, which is universally believed, that the pulse is caused by the systole of the ventricle, then it would follow that the visible pulsation occurring *before* the pulse must have some other cause. Then, as it occurs simultaneously with the impulse at the chest, it is fair to suppose that it has the same cause, which, according to our theory, is the rush of blood into the ventricle. Some have thought it to be improbable that the blood should be sent into the ventricle with sufficient force to pass through it so as to distend a tumor of the aorta: but if we consider, that, in disease, the stroke at the chest is often enormously increased, so that it has been known, if we may credit Bursarius and others, even to break the ribs, "*costas diffrangere*;" and if we allow that the rush of blood into the ventricle is the cause of this impulse, it will not seem too much to believe that the same rush may be capable of driving, as it were, a portion of the blood into the aorta, so as to distend the feeble wall

of an aneurism, or the yielding sides of a dilated artery. The following case may appear even more strikingly conclusive of the points in question.

Double Pulsation of the Carotids.

— Simmons, aged 25.—Symptoms of hydrothorax; was bled and blistered six weeks since, and has been treated with digitalis without effect. He is obliged to be supported in a sitting posture. Pulse 120. There is observed a double visible pulsation of the carotids on both sides. The first pulsation coincides with the impulse of the heart; it raises the fingers when they are pressed upon the artery, but does not give the sensation of the arterial pulse. The second pulsation immediately follows the first, and gives to the finger the sensation of the true pulse; it is exactly synchronous with the pulse at the wrist. To any one feeling the pulsations of the carotids, it would be quite evident that the second pulsation denoted the true pulse; the first was merely a heaving of the artery, and was more sensible to the eye than to the touch. If the fingers were placed on the carotids with the same force we usually apply in feeling a pulse, only one pulsation would be distinctly felt—namely, the second, which was extremely forcible.

The inquiry now would be, as in the case of John Moon, what was the cause of the first visible pulsation? It was too feeble to be caused by the systole of the ventricle, and as the second pulsation was evidently that occasioned by the systole of the ventricle, another cause must be sought for. The one already proposed is the only one that seems probable. The hypothesis of a double contraction of the ventricle producing a double pulsation, would, I think, be hardly satisfactory in this case. Whether the reader be prepared to receive my explanation of the cause of the visible pulsations of the arteries I have related, and also of the aneurismal tumors, or not, I think that, at least, he will perceive that the visible pulsations in these cases, merely from their being coincident with the impulse at the chest, will by no means warrant the belief that the *true pulse* of the arteries nearest the heart precedes that of the wrist, and is, therefore, simultaneous with the impulse. Even should instances be adduced, and I do not doubt of their existence, where, in con-

sequence of disease, the more distal arteries will beat non-synchronously with the nearer ones, I think these should be classed with the abnormal cases, and there are many such recorded, where the pulsation in some morbid part will vary in force, in rhythm, and, what is more remarkable, in frequency also, from the rest of the arterial system. None of these variations from health ought to be adduced for the purpose of establishing the laws of the arterial pulse in the healthy state. Let the reader try, in the healthy subject, the pulse—for example, in the posterior tibial and the carotid arteries—and I think that, if he is entirely free from the bias of theory, he will find them perfectly synchronous.

On the Second Sound of the Heart.

As several writers on the subject of the heart, who, though in other respects favourable to our theory, have found some difficulty in receiving our explanation of the second sound of the heart, I shall pay this part of the subject more attention than I have hitherto done.

It is difficult to perceive how the idea originated, that the action of the auricles is the cause of the second sound, excepting that as the contraction of the ventricles was believed to occasion the first sound, it was natural and obvious to suppose that the action of the auricles produced the second sound, the apparent seat of the sound also favouring the supposition. But it does not appear that this notion was ever founded on actual observation. Laennec, indeed, by the help of the stethoscope, supposed that he could plainly perceive that the second sound coincided with the action of the auricles; but that Laennec founded his belief, not from observations on the living heart exposed to view, but from the indications of the stethoscope merely, seems to be acknowledged in the following words. "By *rhythm* I understand the order of the contraction of the different parts of the heart, and their relative duration and succession, as detected by the cylinder." Again, "the alternate contractions of the ventricles and auricles as examined by the cylinder, and the pulse as examined by the finger, afford the following results, &c." Laennec refers only once, I believe, to an inspection of the living heart, and that made by Dr. Barry, for the pur-

pose of shewing the time of the contraction of the auricle; and what is remarkable is, that the time thus noticed does not in the least support his stethoscopic indications relative to the second sound. He says, (see chap. 14 on the heart), alluding to the experiments of Dr. Barry, that "the blood flowing copiously into the auricles at each inspiration—and the ventricles draw on these reservoirs at each diastole—the contraction of the auricles is a *necessary consequence of the dilatation of the ventricle*: it is contemporaneous with the ventricular diastole, and is requisite to prevent a vacuum. It is really astonishing that Laennec should have ascribed the second sound, which is sharp and clear, to (in his opinion) a passive contraction of the auricles. It appears to me pretty clear that Laennec's stethoscopic observations were used merely to determine each action of the heart, as *previously associated in his own mind*, with its sounds. If we divest auscultation of its mystery, we shall perceive that the stethoscope will only assist us in distinguishing symptoms, not, directly at least, in discovering the causes of them; this must be done by other means, and in the case of the heart, the only means we have is by its actual inspection in the living subject.

I have been unwilling to repeat unnecessary experiments on living animals, because we have a complete body of evidence to prove that the proper auricle, or appendix, which is the active part, contracts immediately before the ventricle, and not after it, as supposed by Laennec. Hervey, as the reader may know, who made numberless experiments on the heart, is quite clear on this point. Haller, who paid much attention to the actions of the heart, affirms distinctly that the auricle contracts before the ventricle, and not after it. Dr. Turner has more recently corroborated these views by accurate observations made on the heart exposed to view; from which it is quite evident that the auricular systole immediately precedes the ventricular, and therefore cannot account for the second sound. Surely such evidence, uncontradicted by any other founded on actual inspection of the heart, should be considered of more weight than hypothetical conclusions, supported merely by stethoscopical indications.

Dr. Elliotson very ingeniously takes

the other side of the question in his clinical lecture, (Med. Gaz. p. 177, v. vii.) on a case where there "was a short, clear, strong sound, such as is ascribed by Laennec to the auricles, but much louder and much clearer than natural The auricles are situated above the ventricles, and it was in the region of the auricles that this sound was the loudest." Dr. E. therefore concludes that "an auricle, or the auricles, were dilated, if Laennec was right in ascribing the second sound to the auricles." He continues, "one gentleman who is very familiar with auscultation—a physician—was very much struck with the loudness of the sound in the auricular region immediately after the pulse, and he concluded with me, that of course the auricle would be dilated, and you see that it is dilated. After this loud clear sound came a pause. Some difference of opinion exists as to the time of the contraction of the auricles: some maintain that the auricles contract before the ventricles, some after. One reason why I coincide with Laennec, though I do not make a positive assertion that he is right is, that the sound which is by him ascribed to the auricle, is loudest in the situation of the auricles. That is certainly presumptive proof that Laennec is correct in the opinion he has formed."

This reasoning, although hypothetical, or as Dr. E. candidly acknowledges, is founded on "presumptive proof," is certainly sufficiently forcible to require that the apparent seat of the second sound should be accounted for in a manner equally satisfactory.

The reader may recollect, that in an hypothesis explaining the second sound, which I have taken the liberty of adding to our theory, it is supposed to arise from the check given to the motion of the blood towards the base of the heart during its systole. The reader must be aware that the blood must be driven to the base of the heart, in order to arrive at the aorta and pulmonary artery; or as Haller has well expressed it, "*ventriculus lacessitus ab impulso sanguine contrahitur et vehementi motu sanguinem suum ad axia compellit et ad basin.*" If, in this state of things, we suppose the ventricle not to be completely emptied, which is more than probable, and that the ventricle ceases to contract at the moment when its contractile power is at its minimum, and

when it is exactly counterbalanced by the resistance of the blood in the aorta and pulmonary arteries, it would follow that at that moment, the ventricle ceasing to act, the impetus of the blood moving "*vehementi motu*," will be received at the base of the heart, namely, by the closed auriculo-ventricular valves, and the sigmoid valves kept also closed by the fluid in the distended arteries. These valves, then, forming the internal bases of the ventricles, will form the check so often spoken of as conditional to the sounds produced by moving fluids. Should it be asked why the check does not take place before the termination of the systole? it may be answered, that till then the blood flows through the aorta and pulmonary arteries, and that fluids, while yet in motion, do not give a shock or sound till something impedes or checks that motion. Now the auriculo-ventricular valves form the chief part of the base of the heart, and answer, in fact, to the situation of the auricular sinuses, forming when closed, the seat of each *sinus venosus*; so that the base of the second sound, according to our theory, does not differ materially from the situation of the auricles, and corresponds perfectly with the apparent seat of the second sound.

But in the case before us there was a striking coincidence, which verified the diagnosis of dilatation of the auricle grounded on the increased loudness and clearness of the second sound; and it might be very properly asked, what kind of a diagnosis, agreeably to our principles, would have been given?

To this I answer, that although merely considering the loudness and clearness of the second sound, the diagnosis would not have been dilatation of the auricle; yet from this sound another, and quite as important a one, would have been given, and which would have been equally verified by dissection, and also on other grounds we should have prognosticated the dilatation in question. Thus, as we suppose that the second sound is occasioned by the impinging of the blood which remains in the ventricle at the extreme systole against the base of the heart; and as it would appear that this sound would be increased in proportion to the quantity of blood, and force with which it is driven by the contracting ventricle; and as this increased quantity of blood and force can only obtain in dilatation with

moderate hypertrophy of the ventricle, this, of course, would form part of the diagnosis.

In this case, also, there was a bellows-sound, which took place "at the moment of the pulse," which, as Dr. E. correctly supposes, "must have arisen from an obstruction to the blood leaving the left ventricle and going to the aorta." Now from such obstruction, which was proved on dissection to exist, we usually find dilatation of one or both auricles: this, therefore, would have been safely pronounced.

Thus far the case tells as well for either theory; but there is one circumstance which was shewn on dissection totally opposed to the idea that the second sound was increased in loudness by the dilated auricle; for it appears that the proper auricle, or appendix, which Laennec very properly considers as the only active part of the auricle, was "lost," that it was "bound down," in consequence, as may be supposed, of previously existing pericarditis. The opinion of Laennec, that the proper auricle is the only active part of the auricle, is also derived from the actual inspection of the heart by Dr. Barry, who considers the sinuses as merely passive reservoirs. How, then, can the only active part of the auricle, which in this case was "bound down" and "lost" by adhesions, be supposed to have been the cause of the increased loudness and clearness of the second sound?

On the other hand, had we been shewn the last and bound-down auricle, together with the contracted and diseased mitral valves, which would have hindered the free rush of blood into the ventricle, we should, in conformity to our doctrines, have said, that the *first* sound would be defective or wanting; which last was actually the case; and as a corollary to this, had we during life remarked the absence of the usual first sound, we should, in accordance with our principles, have made the diagnosis of "*impaired function of the auricle, or narrowing of the auriculo-ventricular passage*," which diagnosis would have been verified in both particulars; for the auricle which we consider conditional to the first sound, was bound down and lost, &c. Had a disciple of Laennec been shewn this same auricle, he would have pronounced, that as the active part of the auricle was lost and

bound down, there should have been no second sound, which was contradicted by the history.

Again, a favourer of the old theory, on observing the dilated and somewhat hypertrophied state of the ventricle, (the walls were of their natural thickness) would, in accordance with the symptoms laid down by Laennec, have supposed that this state would, during life, have been indicated by an *increased* first sound; but from the history, we gather that the first proper sound was completely suppressed, and in its stead there was a bellows-sound, arising from obstruction in the aorta.

Since committing the above remarks to paper, I have observed some ingenious observations, from Dr. Bond of Cambridge, on the second sound of the heart, (*Med. Gaz.* p. 174, vol. viii.) who takes the same ground as Dr. Elliotson, in supposing that the cause of the second sound must be traced to the auricles, on account of the apparent seat of the sound.

I trust I have sufficiently accounted for the apparent seat of the sound, so far, at least, that our hypothesis shall not oppose the evidence derived from auscultation. Speaking, also, of the probability of the auricles causing the second sound, Dr. B. says, "but why not refer the second sound to a similar circumstance occurring in the ventricle at the end of the diastole, and producing the first sound, viz. the sudden arrest given to the further ingress of blood into the auricle by the complete occlusion of the auriculo-ventricular orifice at the instant of the ventricular contraction? "In favour of this reference of the second sound, besides the locality of the sound, we have its greater clearness and intensity, which is agreeable to the comparative thinness of the auricular parietes, by which the fluid is approximated to the ear; consequently, the sound depending upon its arrest is rendered clear and more intense."

I cannot here resist inserting an extract from a private letter from my friend Mr. Berry, surgeon, of Birmingham, written three months before Dr. Bond's paper appeared, in which the identical doctrine is expressed. Mr. B. says, "may not the flow of blood from the two *venæ cavæ* into the dilated auricle be the cause of the second sound, just in the same way as the sound in the ven-

tricle is by the sudden arrest of blood against the dilated ventricle? You have nearly the same conditions in the auricle as you have in the ventricle, viz. the blood issuing from the *venæ cavæ* into the dilated auricle: this meeting with a sudden arrest, causes a sound. As the parietes of the auricle are not so thick as those of the ventricle, you would expect a louder sound: thus the sound in the ventricle would be the first, and that in the auricle the second, &c."

I confess that I should be almost disposed to adopt the explanations just given, which, with a very little correction in Dr. B.'s words, would sufficiently account for the cause, time, and place, of the second sound, but for the following reasons:—

First, the dilatations of the auricle, or rather the sinus venosus, as remarked in Dr. Barry's experiments on living animals, appear not so much to be caused by the rush of blood from the *venæ cavæ*, but to be influenced chiefly by the act of respiration, i. e. during inspiration a dilatation takes place. Now if its dilatation occasioned a sound, that sound would be related rather to the action of inspiration than to that of the ventricle. But we find that the second sound is quite independent of respiration.

Secondly, if the stethoscope is applied to the living heart, both of the sounds appear to arise from the ventricles, although the auricles probably, from being exposed to pressure of the air, appear to have but very little motion.

Thirdly, if we admit the doctrine that the sounds of the heart are occasioned by the motions of the contained blood, and that the quality of the tone, as far as it relates to the musical pitch, depends upon its quantity, which I have proved by experiment, that is, a larger quantity produces a graver, and a smaller quantity a sharper tone, it would follow, that the second sound of the heart being much sharper than the first, should be occasioned by a much smaller quantity of fluid—such a quantity as might be supposed to be contained in the ventricle at the time of its complete systole. But the distended auricle contains as much blood as the ventricle, and the second sound, if produced by it, ought to be as grave as the first, which is not the fact.

But it may be inquired how, on

the supposition of the second sound being produced by the arrest of blood remaining in the ventricle at the end of its systole, is it to be explained, that the second sound is often louder and clearer than the first? To this I would answer, that several causes might contribute to this; as we may suppose that the systole of the ventricle being more forcible, and also quicker than its diastole, the sound produced by it would be louder and clearer; also, that the parts which we suppose receive the brunt of the shock of the arrested fluid, *i. e.* the valves at the base of the heart being mere membranes, supported by the chordæ tendinæ and carnæ columnæ, &c. will present a medium of resistance which we should suppose would give a clear and loud sound. It is, perhaps, from this circumstance that the auriculo-ventricular valves, which form the principal part of the base of the ventricle, being the only separation between the two cavities, that the sound appears to come from the auricles. That the first sound should not be so loud and clear, may be understood from the fact, that in its production, the blood rushing through these valves, now open, impinges on the solid fleshy walls of the ventricle itself, which would in some degree smother the sound.

The heart has not inaptly been compared to a sucking and forcing pump; and to make the analogy more complete, this machine also has two sounds, dependent *only* on the motion of the contained water, and not to be referred to the valves, friction, &c. of the pump, which give their own peculiar sounds. These two sounds happen at the extreme actions of the piston, and differ in their character—the one which occurs when the pump chamber contains its greatest quantity, is graver—the other, which happens when the chamber contains its smaller quantity, (*i. e.* at the termination of the forcing action, which may be compared to the systole of the ventricle) is much acuter. In the pump there is nothing analogous to the auricles of the heart, yet the two sounds are produced.

[To be continued.]

ON THE
INCREASED SENSIBILITY OF THE
RETINA.

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Infirmary.

I HAD been occupied for some time in arranging my opinions on the pathology of the retina, with a view to publication, when a report of Dr. Elliotson's clinical remarks on a case of morbid sensibility of that structure appeared in your journal. It was, therefore, with feelings of great satisfaction that I commenced the perusal of the observations of one so justly celebrated for his sagacity and knowledge as the learned lecturer at St. Thomas's, on a subject to which I had myself paid an unusual degree of attention, and in which I had taken a more than ordinary share of interest. As, however, the views entertained by Dr. E. with regard to the causes of the disease, and its proper mode of treatment, are quite contrary to those I was about to transmit for publication, and as my own views were the product of an experience which, from my official station at the infirmary, may be fairly considered somewhat extensive, and the result of an ample degree of attention and reflection, I have ventured to join with my own opinions some strictures on those of Dr. E.; not, I trust, in a litigious or captious spirit, but from a sincere desire to ascertain and establish correct pathological and therapeutical notions respecting one of the most important morbid conditions to which the retina is subject.

The term morbid sensibility of the retina applies to a variety of diseased conditions, which may or may not be attended with an organic change in the texture of the retina itself: for instance, the retina may possess an augmented sensibility to light, forming what is termed photophobia; (which, as I shall presently endeavour to shew, was really all that existed in the case so humorously related by Dr. E.); it may be unusually sensitive to some particular colour, or to many colours; or it may be morbid as regards its sensibility only in reference to certain combinations of colour. Then, again, it is important to

distinguish between increased and depraved sensibility, inasmuch as the former consists in an augmented sensation, from a natural degree of impress, whilst the other mistakes, distorts, and perverts the form, colour, magnitude, and distance of surrounding objects. Each of these states of the retina is, in nearly every instance, symptomatic of disorder, disease, or irritation of some near or distant organ or texture, scarcely ever arising from any functional or organic defect in the retina itself as a primitive disease; but as I intend to confine my observations as much as possible to the increased sensibility of the retina to light merely, I shall only adduce the more ordinary causes of this single phenomenon.

The retina of strumous children has frequently a much increased susceptibility to light, without being combined with any change of texture: in the same way various morbid or irritable states of the uterine system lead to the production of this condition of intolerance of light; and the defects of this function, to which I more particularly allude, are those in which the uterine secretion is altogether absent, or diminished in its quantity, to which must be added painful and irregular menstruation. I have seen very many cases of this description, where the retina has been so intolerant of light that the eyelids have been closed during the whole of the day with a spasmodic force equal to that which occurs in acute retinitis, so that any attempt at separating them has occasioned great pain, and induced severe spasm of the orbicularis palpebrarum, yet the eye itself has been perfectly free from inflammation, and quite natural in appearance, with the exception of a contracted state of the pupil. If such a condition of retina exists in combination with amenorrhœa, suitable remedies, directed to the torpid condition of the uterus, will, if they establish its natural function, quickly relieve the spasm of the orbicularis, and remove the augmented sensibility of the retina, and any attempt to restore the eye to its natural and healthy condition, under such circumstances, by local remedies, employed with a view of "deadening" the sensibility of the optic nerve, would be far from constituting the "most rational mode of treatment." A short time ago I saw, in the absence of a medical friend, a young woman

whose case is so fully illustrative of my views on this subject, that I shall briefly mention its outlines. She was a girl of a healthy appearance, and about nineteen years old, and had never yet menstruated, but suffered occasionally from pain in the loins and the lower part of the abdomen. The eye-lids were forcibly closed; and from the frequent and powerful contraction of the orbicularis and corrugator muscles, they had acquired considerable power and thickness. The most careful attempt to examine the state of the eye occasioned extreme torment and profuse lachrymation, and was succeeded by a series of painful and spasmodic contractions of all the muscles of the eye-ball and lids; but there was no external inflammation, and no evidence of any deep-seated inflammatory mischief, although the pupil was extremely small and contracted. She had tried various local applications before I saw her without the slightest advantage, but was speedily cured by the use of Griffith's mixture and a few of the common pilulæ aloë c. myrrha. A young woman came to me a few days since from Westbromwich, with, to use her own words, a spasm of the eyelids; and after examining the state of the eye, (one organ only being affected) and observing its freedom from inflammation, I ascertained that she also was the subject of amenorrhœa; and although she has tried fomentations and collyria, of various kinds, for many months, I have little doubt of her speedy and perfect restoration by the employment of the constitutional treatment which the more important disease, (amenorrhœa) of which the condition of the retina is merely a symptom, requires.

Without entering further into the detail of cases illustrative of the various causes of an increased sensibility of the retina, I may state, first, that it may be produced by any source of gastric and intestinal irritation, the most frequent of which is, that condition of the mucous surfaces which occurs in strumous children, or is produced by the existence of worms; two, by general nervous excitement; three, by various morbid states of the sensorium; four, by various disordered, diseased, or irritable conditions of the uterine system; five, by inflammatory and other affections of certain parts of the eye; six, by disorder or disease of its own proper

structure, and this is of all others the most infrequent cause of photophobia.

As regards the treatment of this increased sensibility of the retina, it will, of course, depend altogether on the cause producing it; but as in nearly every instance it is but a symptomatic affection—a symptom of disease or disorder in some other part—local treatment, in the general, must be of a very subordinate character.

It is not, however, my intention to pursue this part of the subject in detail; for the adoption of such a course would be absolutely detaching one symptom of a disease from its associates for the purpose of distinct treatment; it would, in short, be making a separate disease of a symptom without any good or sufficient reason for so doing. The treatment of the scrofulous, the gastric and the uterine photophobia, and, indeed, almost all its other forms, is, in fact, but the treatment of the disordered or diseased condition of that organ, or that state of the system, of which it is but an occasional symptom; and which must be conducted on the same principles which would guide us in the management of the same cases where no affection of the retina existed.

With regard to the case related by Dr. Elliotson, I would beg to observe, first, that it was, in my opinion, an instance of photophobia simply, depending on disorder either of the gastric or uterine functions; secondly, that it could not, if my preceding remark be correct, be permanently cured by any application directed merely to the eye, whatever might be its nature; and, thirdly, that the local application of belladonna was, of all things, least likely to be useful. With respect to my first position I would remark, in the language of the lecturer, that “she could not bear any strong light,” and that “Dr. Root’s gay bouquet of shining seals drove her almost crazy;” and although she had certain objections to various coloured surfaces, it was merely such as, by their reflection when sufficiently illuminated, were of the most vivid and obnoxious character—such, for instance, as red, yellow, and white; which is precisely the case with all persons the sensibility of whose eyes to light merely, without any change as respects their impressibility to the influence of coloured surfaces, is much increased. It is true, indeed, that she

also objected to black, but her aversion was evidently either capricious or feigned; as, indeed, the doctor proved in his amusing vindication of the quality of his coat. This is, indeed, (as I imagine,) the only mode of explaining her aversion to the company of her husband, whilst the presence of the learned lecturer was perfectly agreeable to her optics. Persons who suffer from intolerance of light are not generally particularly averse to look upon a black surface; and for this reason, combined with her own strange mistake respecting the rusty condition of Dr. E.’s coat, I am disposed to believe that she either unwittingly exaggerated, or willfully misrepresented her sensations.

I have said that the true cause of the morbid sensibility of this woman’s retina, was probably some disturbed or diseased condition of the uterine, gastric, or intestinal system; and that it could not, if my supposition be correct, be permanently cured by means of any local application to the eye alone; and I am borne out in the former part of this statement by the following account of her symptoms:—“I know she is hypochondriacal, and suffers from every little uneasiness of body.” “There are no feverish symptoms, except a heat she says she feels in the vagina, and aerial and alimentary mucous membranes.” And the latter part of my observation is a mere inference deduced from the former, an inference which is not at all overstrained, and the accuracy of which cannot, I think, be questioned.

With regard to the use of belladonna, which has appeared to me so very unadvisable in this case, I shall first remark, that we are not in possession of any sufficient evidence to prove that the application of belladonna to the unbroken skin around the eyes, is capable, unless persevered in for a great length of time, of deadening the sensibility of the optic nerve, and then it would appear to act upon the nerve by narcotizing the system. It is not requisite to inquire how far it is advisable to place the system under the permanent influence of a narcotic remedy, for the purpose of curing the intolerance of light, inasmuch as we have previously shown that the state of the remedy was but a sympathetic affection, and could therefore be more correctly treated and promptly removed, by means directed to the particular nature of the exciting cause; but we will,

for a moment, inquire into the nature of the evidence which may be brought forward in support of the supposition, that the local application of belladonna to the unbroken skin can deaden the sensibility of the optic nerve, independently of the production of that general narcotizing effect which we have considered it to be unnecessary and improper to excite. If belladonna be applied to the eyebrows of a person whose eyes are in a perfectly healthy state, so as to enlarge the pupil very considerably, without evidencing any further action upon the system, the eyes certainly become less susceptible of light; but not because the sensibility of the optic nerve is deadened, but because the expansion of the pupil permits the admission of so large a portion of light, that the retina is, as it were, overwhelmed, and the impression of form, magnitude, and colour, obscured by the intensity of the luminous impression. It is on this account that, when the retina is protected from a part of this superfluous light, by a partially opaque state of the lens—a lens, the central part of which is nearly opaque, its circumference being only slightly suffused—the power of vision is materially increased by enlarging the pupil by the aid of belladonna. It is, indeed, no correct explanation of this circumstance to assert, that the expansion of the pupil permits the transmission of light through the least opaque and dense portion of the crystalline lens, for if the effect of belladonna were such as Dr. Elliotson described, vision ought to be obscured, not increased, by the expansion of the pupil, in the instance to which I have just adverted. All the phenomena resulting from the enlargement of the pupil by means of the local application of belladonna, as it is ordinarily used, are clearly referrible to its action upon the iris; but I will not trespass further upon your pages on the present occasion by adducing my proofs.

Having pointed out the impropriety of attending to a symptom instead of a disease, or rather to the total neglect of a disease—of using a palliative treatment where a curative plan might and ought to have been adopted; and having denied that the simple application of belladonna to the unbroken skin around the eye, for a short period, can absolutely deaden the sensibility of the optic nerve, independently of a narcotizing influence upon the system; and having

brought forward evidence in support of my denial, I will proceed to show, that by expanding the iris by means of belladonna, and admitting a larger portion of light to the retina, already too susceptible to the impression of an ordinary amount of light, such a remedy was of all others least likely to be useful. If it be allowed that the quantity of light admitted to the retina is regulated by the magnitude of the pupillary aperture—and if it be also admitted that the result of the action of belladonna upon the iris is to produce its expansion (the enlargement of the pupil), I conceive there can be no denying, that where the retina is unusually sensible to light, the application of belladonna must be injurious, by exposing the retina to an increase of that stimulus, of which it was previously too susceptible, and by which it was already painfully oppressed. The explosion of a pistol must be as useful and agreeable to an ear intolerant of sound, as the expansion of the pupil to a retina whose sensibility to light is increased.

It is much to be regretted that Dr. E. omitted to state to his audience the patient's age, the condition of her uterine system, and the state of the constitution generally,—circumstances which appear to me of the utmost importance to notice, in the relation of any case of disordered or diseased action of a part, which may be either the evidence of disease in its own structure, or the indication of disturbed function elsewhere.

FATUITY FROM INVERMINATION.

To the Editor of the London Medical Gazette.

SIR,

THE following case was brought to my recollection by some very excellent remarks at page 381 of your last number. Whether a foul state of bowels, rather than the worms, might not have been set down as the original cause of this girl's extraordinary ailments, it perhaps may not be easy to say. At all events, the facts are stated exactly as they occurred: of this, indeed, I trust I need hardly assure you, believing, as I do, most sincerely with Dr. Ferriar, that "a medical writer who suffers personal considerations to warp his report of

cts is the worst of criminals." With-
out further preface, I remain, sir,
Your obedient servant,
C. H. HARDY, M.D.

Bath, June 22, 1831.

*Fatuity from an accumulation of
Ascarides.*

Elizabeth Whittingham, a girl of 14
ears of age, of a pale, gloomy, and va-
nant countenance, whose employments
were sedentary, and who had never
properly menstruated, was admitted an
out-patient of the Bath United Hospi-
tal, Tuesday, October 28, 1828.

Her appearance and manner gave the
strongest impression of idiocy, or rather
mania. The brow was contracted; the
eyes restless, wandering, and betraying
suspicion; and she made repeated at-
tempts to escape from the room. She
refused to answer, or did not compre-
hend the commonest questions, and be-
trayed the utmost reluctance to a pro-
tracted investigation. From the infor-
mation of her mother, who accompanied
her, it appeared that she suffered chiefly
from drowsiness, pain of head, vertigo,
syncope, and hiccup; that she had
more than once fallen down, and was
totally indifferent to every thing, and
every person around her; her abdomen
was large and tense; she had flatus,
borborygmi, and costive bowels; the
pulse was quick and sharp; and the
tongue slightly furred.

To be bled immediately to 10 ounces.

To have a three-grain calomel pill every
other night, and a purgative draught
every other morning.

31st.—Less drowsy and oppressed,
but "memory entirely lost, calling one
thing for another;" is freely purged,
motions less dark, and has discharged a
vast quantity of ascarides, collected and
agglutinated into round masses; coun-
tenance and manner little altered.

Increase the dose of calomel to five grains
every other night, and continue the
cathartic mixture.

Nov. 4th.—Countenance dark and
suspicious, but speaks rationally; the
stools are more healthy, and fewer
masses discharged.

Continue the medicines.

7th.—Countenance bright and cheer-

ful, evacuations natural, expresses her-
self thankful for the attention shewn
her, and is free from complaint.

1829.—This girl, when last heard of,
remained in good health, and actively
employed in her usual business, that of
a sempstress. Her case is recorded,
not on account of any thing very re-
markable attached to it, but as capable,
perhaps, of affording a hint as to prog-
nosis. Her demeanour was so eccen-
tric, and her whole appearance so de-
cidedly maniacal, that it might, in some
instances, have led to severe and improp-
er measures of treatment or of coer-
cion, and the unfortunate sufferer, it is
possible, have been actually driven into
that state, which was, at present, only
simulated.

Nothing certainly could be more re-
markable, or present a greater contrast,
than the face of gloom in the commence-
ment, and the cheerful and pleasing de-
meanour at the termination.

ULCER AND SUBSEQUENT NEURAL-
GIA OF THE LEG,

Treated with Nitrate of Silver.

*To the Editor of the London Medical
Gazette.*

SIR,

Miss R. ætatis 20, fell and bruised her
leg against the edge of a step. The
skin upon the edge of the tibia was
broken, and the fascia considerably in-
jured. Little notice having been taken
of the accident at the time of its occur-
rence, considerable inflammation and
great pain succeeded in the course of a
few days. After the application of
leeches, poultices were applied to the
part, which now assumed the ulcerated
state; and these were continued until
it became necessary to suspend their
use, in consequence of slight vesication,
and a simple emollient application was
substituted. This was persisted in for
two or three months, the sore re-
maining unhealed and very painful, not-
withstanding every attention to the ge-
neral health, which was, however, much
disordered. A slough having slowly
formed, the nitrate of silver was applied,

which eventually caused the ulcer to heal, with the adherent eschar. The eschar was a long time in falling off, so that I was often tempted to remove it, supposing it prevented the healing of the sore. Fortunately my patience triumphed, and when the eschar separated, the sore was found to be quite healed. I noticed this circumstance at the time very particularly, and should perhaps have been induced by it alone to try the same mode of treatment at a future time. I was not then acquainted with the principle of treating ulcers with the nitrate of silver, as described by Mr. Higginbottom. Though there now remained no wound, the part still continued painful, interfering with the enjoyments of the patient by disturbing her rest and preventing due exercise. The pain was described as being sometimes very acute, but chiefly a deep-seated aching. This state continued for many weeks, notwithstanding the use of opiate liniments, warm fomentations, blisters, &c. I now had recourse again to the nitrate of silver, as directed by Mr. Higginbottom in cases of neuralgia. The first application was made on Thursday, the 22d of July. It caused considerable smarting, which continued all day, and slight vesication, which was not interfered with. On the following day the leg was easier, and exercise more tolerable. On Monday, the 26th, a second application was made, which did not produce any of the former inconvenience. The pain has almost entirely subsided. On Wednesday, the 28th, I again applied the caustic, and sent my patient into the country for a week. She returned home better, and was able to walk a distance of two or three miles without pain. On Saturday evening, the 7th of August, my patient experienced a return of the acute pain, but the aching did not recur. On Monday, the 9th, I again applied the argent. nit.

12th.—Much the same.

Applicat. Arg. Nit.

16th.—No alteration.

Rep. Remedium.

After this application of the caustic a gradual abatement of pain took place; and after repeating the remedy a few times it entirely ceased; so that since then my patient has had no return of

any uneasiness whatever, and is able to use the leg as freely as ever.

I am, Sir,
Your obedient servant,
J. P. NEEDHAM,
Member of the Royal College
of Surgeons, London.

York, June 25th, 1831.

DISPENSARY REPORTS.

By JOHN BURNE, M.D.

Physician to the Public Dispensary, Chancery-Lane.

Dysenteric Diarrhoea and Cholera.

A DISORDER consisting of a looseness of the bowels, with torminous dysenteric pains, and which I have therefore called a dysenteric diarrhoea, shewed itself in the district of the Dispensary, Chancery-lane, in the month of May 1830; after which it prevailed epidemically through July, August, and September, and has continued in a sporadic manner during the winter up to the present time, June 1831, when the number of cases has again begun to increase. With it have occurred also some cases of cholera of a severe description, one of which proved fatal in fifteen hours, and from the near relation which the symptoms of these cases of cholera, and particularly which the appearances on dissection of the fatal case, bore to the cholera that has ravaged, and is ravaging the continent, I am constrained to believe that it and the dysenteric diarrhoea were brought into existence by the same influence which has given rise to the cholera in Russia. Moreover, I cannot but regard the dysenteric diarrhoea and the cholera as modifications of the same disease, the stomach not sympathizing in the former, because the same condition of the constitution was common to both, the body being evidently under the influence of some cause which depressed the vital powers; and so exactly did the symptoms of the two diseases accord, that betwixt the worst cases of the dysenteric diarrhoea, and the less severe cases of cholera, there was only the difference between nausea, which was often present in the former, and vomiting, which was peculiar to the cholera. So in the recent influenza, the depression

f the vital powers has, in the generality of cases, been a prominent feature; and he continued fever which has prevailed to a very unusual extent for the last eighteen months, has manifested a character particularly adynamic. This prevalence of adynamic fever, influenza, dysenteric diarrhœa, and cholera, reminds me strongly of the contemporaneous prevalence of these same disorders in the time of Sydenham, from the year 1675 to 1679.

The dysenteric diarrhœa varies much in degree, as well as in the form of the attack, many cases being slight, and unaccompanied by disorder of the system; while others are severe, and preceded by general indisposition for several days. In the milder cases, patients are at once attacked with pinching pains in the bowels, which are followed by a looseness, and more or less tenesmus. The severer are preceded by a marked indisposition for several days; the patients experience great languor of mind and body, feel sleepy and heavy, and have a severe though indescribable pain in the head; the appetite declines and nausea supervenes, attended with great thirst and a sense of dryness and roughness of the tongue; to all of which is added, a feverishness at night. Then comes the ventral disorder, characterized by severe torminous pains in the bowels, remitting and recurring in rapid succession, and followed up by frequent defections, copious and feculent at first, then thin, acrid, and slimy, giving rise to an urgent and constant tenesmus, which will not allow the patient to leave the closet. These ventral pains, although remitting, and not protracted, are severe and acute, and excite an instant flush of heat and perspiration over the body, the sweat standing in drops upon the face, which quickly passing away, leave the body chilly.

Very similar to this severe degree of dysenteric diarrhœa, is the attack of cholera, it being preceded by indisposition of the same character for two or three days; and, indeed, the disease when formed, presents the same ventral symptoms, with the addition of vomiting. Thus patients affected with cholera complain of having been unwell for two or three days prior to the attack; of having found themselves indolent, their strength and appetite failing, their temper become irritable, the head to be painful, and their nights restless. The

cholera now supervenes, marked by torminous pains in the bowels, quickly succeeded by urgent vomiting, purging, and tenesmus, and the urine, as well as the defections, are in some instances bloody.

The treatment of the cases of cholera, as well as of the dysenteric diarrhœa, though simple, has been uniformly successful, giving speedy relief, and arresting and curing the disorder without one instance of failure, the subject of the fatal case of cholera having died without medical assistance. The treatment has been directed on the principle of allaying irritation, and at the same time of carrying off the offending matter from the bowels, which object has been accomplished by the use of the Tincture of Opium, Castor Oil, and Magnesia, administered in proportions adapted to the exigency of the case, as indicated by the degree of pain, of irritability of the stomach, and of looseness of the bowels. The Tincture of Opium has been given in conjunction with the Oil, the dose of the tincture varying from six to ten drops, and of the Oil from one to three drachms; after which, in the course of twelve or fifteen hours, the magnesia has been prescribed in the proportion of fifteen grains, twice or thrice a-day. The effect of the oil and laudanum is the allaying the pain and tranquillizing the irritability of the stomach and bowels; for the purging, instead of being aggravated, is allayed, no evacuation taking place for six, eight, or twelve hours, when the operation of the oil carries off the offending matter by one or two rather copious defections.

If the dysenteric diarrhœa is left to itself, it is disposed to continue rather than to subside, with this difference, in addition, that the strength becomes exhausted, and the sympathetic disturbance of the constitution amounts to an irregular, though slight febrile movement. Hence many of the patients who have not been under medical treatment had been already ill from seven to ten days before they applied for assistance.

Where, instead of the soothing measures above described, the dysenteric diarrhœa has been treated by acrid medicines, as by emetics and by calomel, the disease, the nature of which is in the first instance purely irritation, is at once aggravated to a muco-enteritis,

and much suffering, and a protracted illness, is the consequence, as I have had the opportunity of knowing from cases which have come within my own observation.

CASE I.—Mild Dysenteric Diarrhœa.

A gentleman, of adult age, consulted me on the 29th June, in the evening, on account of a bowel complaint which had troubled him through the day. He was attacked in the morning with pinching pains in the bowels, acute, but of short duration, which were quickly followed by copious, though loose dejections. The pains recurred several times during the day, and were followed, as at first, by dejections more loose and less copious in proportion as they were numerous. Tenesmus had also begun to trouble him. His appetite and general health were not affected; and as he was of a constipated habit of body, I directed him to take without delay half an ounce of castor oil, with six drops of tincture of opium, floating on water; and in the morning, fifteen grains of the carbonate of magnesia, to be repeated twice a-day. The pain and looseness of the bowels, as also the tenesmus, were at once allayed by the tincture of opium and the oil; and in the morning, no evacuation having taken place, the oil and laudanum were repeated, which then quickly moved the bowels in a natural manner. The magnesia was afterwards taken as prescribed; but as the bowels shewed their habitual disposition to be confined, the castor oil was again repeated in a couple of days, without the tincture of opium, there being no pain; after which the patient felt himself quite recovered.

CASE II.—Severe Dysenteric Diarrhœa.

A servant maid, about 30 years of age, was affected, without any assignable cause, with severe headache, and great bodily weakness. She lost her appetite; was sleepy and heavy; distressed with nausea; great thirst, and a sense of dryness and roughness of the tongue; and at night was feverish. These symptoms having existed for several days, she was seized with torminous pains in the bowels, together with a purging and a sense of fulness of the abdomen. The pains recurred in quick succession, as did also the purging; the dejections, all very offensive,

were at first copious and feculent, then became thin and irritating, and induced an urgent and unceasing tenesmus. Her strength declined rapidly.

Two drachms of castor-oil, with eight drops of tincture of opium, were given, and followed by an immediate abatement of the pain and diarrhœa, and an alleviation of the head-ache. The bowels did not act again for twelve hours, when they were relieved by one or two less scanty and more natural dejections. In the course of the second day the oil and laudanum were again repeated, in consequence of a slight recurrence of transient pinching pains, which were again at once relieved. The magnesia was now had recourse to, by which the natural action of the intestinal canal was preserved, and the patient recovered without any further alvine molestation.

CASE III.—Dysenteric Diarrhœa, with Cramp in the Extremities.

Elizabeth Abel, aged 36, married, and naturally healthy, was admitted a patient of the Public Dispensary on the 16th December, 1830. Complained of pinching pains in the bowels, accompanied with frequent small slimy dejections; and also of violent cramp in the hands, legs, and toes, lasting for the space of ten minutes, when it would cease and again return. She had been affected with the bowel complaint for upwards of ten days, on the fourth day of which the cramp supervened.

To take *Ol. Ricini*, *℥ij*. *Tinct. Opii*, *gt. viij.* every other morning, and some magnesia twice a-day.

The first dose of oil and laudanum produced two rather copious dejections in the course of an hour, and was followed by an immediate abatement of the ventral pains, of the diarrhœa, and of the cramp. The repetition of the oil and laudanum on the third day produced plentiful dejections; the magnesia regulated the bowels on the alternate days, and in the course of a week she was free from all complaint.

CASE IV.—Dysenteric Diarrhœa, inducing Muco-Enteritis—Fatal, with the morbid appearances.

A young woman, 28 years of age, of an unhealthy aspect, and who had previously been in Guy's and St. Thomas's Hospitals for affections of the head, of

the chest, and of the knee, was admitted into Guy's Hospital in an irrecoverable state, early in the month of last February.

Three weeks before her admission she had been suddenly attacked, for the second time, with pains in the belly and looseness of the bowels, to which an occasional vomiting supervened; and she was placed under the care of the parish surgeon, but without relief—the diarrhœa and the vomiting having increased up to the present time.

At the present time she is affected with griping pains and a looseness of the bowels, to the extent of from eight to ten dejections in the twenty-four hours; and also with vomiting on taking ingesta, liquid or solid. The abdomen is flat, soft, and free from pain on pressure. The tongue is morbidly clean, red, and dry anteriorly, and rather coated and white at the back. She has no appetite, and experiences great thirst. The pulse is thready and frequent, the skin below the natural temperature, and the face pale.

Her physician made trial of the mist. magnesiz, with the tinct. camph. comp., which, having no effect, were changed for other appropriate remedies, as the mist. cretæ, conjoined with conf. aromatica, and tinct. opii; and, lastly, brandy, kino, and an opiate suppository.

But the case was past hope; the looseness of the bowels grew worse, bloody mucus was present in the dejections, and the vomiting continued; till at length she sunk, on the fourth day after her admission into the hospital.

Sectio Abdominis.—The mucous membrane of the stomach and intestinal canal was diseased throughout. In the stomach it was soft and almost gelatinous, while the submucous tissue was dense and thick. The muciparous glands were enlarged, so as to be visible, in the form of small, grey, circular, flat, opaque bodies, with a dark point in their centres.

In the duodenum the muciparous glands and submucous tissue were in the same state as in the stomach.

In the small intestines the disease of the mucous tunic was slight in the upper part of the jejunum, but increased as it approached the ileum, and this more and more as it approached the large intestines; and corresponding

with the diseased membrane was the preternatural density of the submucous tissue.

The morbid condition of the mucous membrane was peculiar: it presented a scabrous surface of minute, thickly studded, hardish granules, spread over the whole surface of the membrane, the valves as well as their interstices. The colour of the granules was of a brown green, darker in some places, lighter in others; the deeper colour being present where the disease was most developed.

The colon was contracted, and nearly empty throughout its whole course, and its substance was generally increased by very considerable density, as well as thickening of the submucous tissue, which so destroyed its natural yielding property as to render it incapable of distention. The mucous membrane itself was swollen and studded with innumerable small ulcers, void of vascularity, which penetrated through the mucous tunic into the dense and thick sub-mucous tissue, thus giving the interior of the gut a worm-eaten appearance.

CASE V.—*Mild Cholera.*

On the 2d of May, 1830, at seven in the evening, I was called to a married woman, of middle age. She was in bed, and complained of having been seized, in the morning, between five and six o'clock, with torminous pains in the bowels, and quickly afterwards with vomiting and purging, which have continued through the day. The dejections were frequent and very offensive; at first they were frothy and yellowish, now pale and mucous, accompanied with tenesmus and preceded by tormina. The sickness is urgent the instant she raises herself in bed, and little else than phlegmy matter is ejected. There was much pain in the head—chiefly in the cerebellum. The skin, which had been burning hot all the day, was now perspiring. The feet burned, and the face, flushed at one time, was pale at another. The pulse at 120, fluent, rather sharp, but easily compressible; the tongue of a light brown, and dry along the middle, but not very red. She was very restless, and excessively weak.

For three days previously she had been affected with pain in the head, had found herself indolent, her temper to be

irritable, her strength and appetite to fail, and her nights to be restless.

To take Ol. Ricini, 3ijj. Tinct. Opii, gtt. x. immediately, and to be repeated in five hours if there is no evacuation; the magnesia to be afterwards taken in the usual manner.

The vomiting recurred once after the first dose of the oil and laudanum, and as the pains, though mitigated, still returned, and there was no evacuation, a second dose was given at the end of five hours, which, although it entirely relieved the pains, did not move the bowels till six o'clock in the morning, when the patient had two dejections, yellowish, thin, and frothy, but less offensive than those of yesterday.

May 3d.—The tongue is become moist and clean, the skin perspires, the pulse is reduced to 110, is soft, and no longer sharp; the visage pale, and she remains exceedingly weak; the pain in the head is alleviated, and she is in every respect much better. The magnesia was now given, which regulated the bowels, and she recovered forthwith.

In this instance the castor-oil was prescribed in a larger dose than I should generally recommend where there is sickness, on account of the burning of the feet and flushings in the face; which, whether in cases of fever, dysenteric diarrhœa, or cholera, I have always found to indicate the presence of offensive and irritating matter in the intestinal canal.

CASE VI.—*Dangerous Cholera.*

The subject of this example was a young married woman, who had been delivered about a fortnight. She was lying in bed, prostrate, pale, and bathed in sweat, suffering from torminous pains in the bowels, and vomiting and purging incessantly: not the slightest thing, even toast and water, could be retained an instant on the stomach. The tongue was coated and dry, and the pulse weak and rapid. I was alarmed for the safety of this person, as well on account of her present exhausted state as of the rapid and fatal course which the disorders of child-bed women are apt to take; and I for a moment paused to consider what treatment should be adopted. Reflecting on the invariable success which had attended the use of the oil and laudanum, I decided to try

it in this case also; and accordingly one drachm of castor-oil, with ten drops of the tincture of opium floating on water was directed to be taken immediately; and no sooner had she swallowed this dose than the irritability of the stomach was appeased; the sickness ceased; she was able to take drinks, which from excessive thirst she earnestly desired; the torminous pains were relieved, the purging ceased, and the bowels not acting for several hours, when one or two dejections of a more natural character occurred. In the course of twelve hours she commenced taking the magnesia, and recovered without any untoward occurrence.

[To be continued.]

PROXIMATE CAUSE OF CHOLERA.

To the Editors of the London Medical Gazette.

GENTLEMEN,

THE subject of cholera must necessarily be occupying a large share of the thoughts of every medical man; and it seems to me highly desirable, that each should communicate any new idea which may occur to him respecting the cause or treatment of this terrible malady, to the profession, with as little delay as possible.

In perusing the last number of the Medical Gazette (June 25), I was struck with the close resemblance which the symptoms of cholera bear to those of poisoning by oxalic acid. I will not occupy the columns of your valuable journal by enumerating these points of resemblance, but refer your readers to your last number, and to Dr. Christison's work on poisons, article "Oxalic Acid." Further, Dr. Prout, in his lecture on chemistry, reported in the same number of the Medical Gazette, states that free oxalic acid not unfrequently exists to a certain extent in the human body; and among the symptoms to which its presence gives rise, he says that it causes "a peculiar livid tint of the skin;" that "the venous blood is often of an unusually dark colour;" that "there is generally extreme nervous depression, or irritability, irregular action of the heart, and a state of mind almost bordering on insanity." I would

therefore ask, is it possible that cholera may be owing to the rapid formation of a large quantity of oxalic acid in the body?

Having thrown out this crude hint, I subscribe myself,

Your very obedient servant,
M. D.

Liverpool, 1st July, 1831.

MEDICO-BOTANICAL SOCIETY,

Tuesday, 29th June, 1831.

H. GIBBS, ESQ. TREASURER, IN THE CHAIR.

Dr. Negri on the new uses of Ergot of Rye.—Dr. Hancock's Remarks on the Waiah-Root.

AFTER the usual preliminary business, and the announcement of presents (among which we noticed numerous fresh specimens of medicinal and various other plants, with some anomalous vegetable growths, sent by Messrs. Gibbs, Iliff, and Wallis,) the secretary, Dr. Sigmond, read two very interesting papers, communicated by Drs. Negri and Hancock; the first on the new uses of Ergot of Rye, in which Dr. N. gave a condensed view of what facts had been arrived at by the researches of the Italian physicians, with references to such points as had been since substantiated by experiments in this country. The second paper contained some remarks on the *Waia-wouri*, or *Waiah-root*, and its uses in cough, phthisis, &c. &c. in an appendix to which there was contained the following, perhaps important, observations:—

"An objection having been made to the use of the term laurel oil, in one of Dr. Hancock's essays, he explained to the objector that the term could hardly be considered to imply the presence of prussic acid, as it had been supposed to do, when it is well-known that 'the plant, the leaves of which afford the poison in question, is not a laurel, but a cherry, and that prussic acid does not belong to the laurels.' The above explanation appeared in the *Guiana Chronicle*, January 1826; and Dr. H. took this opportunity further to remark what he considers a prevalent error amongst even our latest pharmaceutical writers, viz. that of describing prussic acid as present in the *laurus nobilis*, or sweet

bay-tree. Dr. H. also observes, in this appendix, that 'it would appear that the sweet bay (or *laurus nobilis*), and the cherry laurel (or *prunus lauro-cerasus*), are often confounded; and it must have been through inadvertence, he presumes, that Mr. Brande has spoken of prussic acid in conjunction with the *laurus nobilis*. In page 110 of Brande's very useful *Manual of Pharmacy*, it is stated, that the only active ingredient in its leaves is prussic acid; and adds, 'the oil of bitter almonds is the only requisite form of vegetable prussic acid for pharmaceutical use; hence laurel, and all that belongs to it, may well be rejected from the *materia medica*.' This extract renders it plain that Mr. Brande meant the laurel-leaved cherry, and not the true laurel; as he could never have intended to discard the *laurus camphora*, *L. cinnamomum*, *L. cassia*, *L. sassafras*, &c. &c. from our lists of medicines.

"The same error, if such it be, continues Dr. H. appears in the works of several modern authors, e.g. Dr. Thomson, in the *London Dispensatory*, and Rennie, in his *Supplement to the Pharmacopeias*. The learned author of the *Pharmacologia* has likewise made a slip of this kind, for, in alluding to the poisonous nature of the cherry laurel, he remarks, in a note, (vol. i. p. 12,) 'the laurel was sacred to Apollo, with plantations of which his temples were surrounded:' it was, however, not the cherry laurel, but the *laurus nobilis*; the bay, the *laurus poetica* of Pliny, the *Δάφνη* of Dioscorides, to which those elegant lines of Ovid, beginning 'Semper habebunt te cornæ, te citharæ, te nostræ *Lauræ* pharetræ,' &c. refer.

"Is it true," asks Dr. Hancock, "that the bay is a poisonous vegetable, owing to the presence of prussic acid? I have never seen the fact announced as the result of actual experiment. If so, however, it is of great importance to be made known—as much so as any fact in pharmaceutical chemistry; if not true, it is most extraordinary that so many authors should have fallen into such an error: it is at any rate a subject well worthy of further investigation."

This being the last meeting of the present session, the society at its rising was adjourned to November next.

good or for evil in the establishment, with one voice cry aloud for *inquiry* into its *real* condition. Any certainty, they feel, would be better than the torturing state of doubt, and disunion, and suspense, in which they have lived for the last few seasons. Such inquiry is now being made by nine shrewd committee-men; and on this day fortnight we are to expect an *exposé* which will either tend to dismantle the institution altogether, or to set it once more afloat with more definite views of prosperity. It would be premature in us to hazard an opinion of the probable result of this inquiry; but we have no hesitation in saying that we think the appointment of the committee must be productive of much good: it is the wisest thing that has been done by the management for many a long day. The reduction of expenditure lately effected, especially in the abatement of the Warden's salary — by which 1200l. a year was saved to the institution, paid for the last four or five years for the discharge of duties which, it is proved, can be as efficiently performed for 50l. — was a wise and prudent measure. But reduction of expenditure alone will not secure a sufficiency of income. An establishment begun, as the London University was, with such extravagant anticipations of success, must, in its present circumstances — with a nominal fund of 10,000l., 7000l. of which has not yet been paid up by the shareholders — be in a very awkward condition if some remedy for retrieving its fortunes be not pointed out by the committee of inquiry.

We were always of opinion that, in the case of this institution at least, a multitude of counsellors did *not* bring safety — and it seems that we were fully borne out in that opinion. Nothing could have been more unsatisfactory than the conduct of the Council for some time past; all ardour and interest

in the well-being of the establishment, so far as they were concerned, seemed to be little above zero. Of the twenty-one members, some would attend one day, some another, and we forget how few would constitute a quorum: but things of the strangest and most contradictory character used to take place at these occasional meetings. All the world knows how unaccountably, how enigmatically, the connexion between Mr. Charles Bell and the University subsisted for many months before it was finally severed. One week we had to announce that gentleman's resignation upon authority not to be questioned, the next we had to contradict our former statement, for Mr. Bell's resignation was *not* accepted, and the chair continued to be filled as usual. Now all this actually went on, and without the possibility of any imputation on our veracity: one quorum of the Committee, as Mr. Warburton stated in his speech, would and did receive Mr. Bell's as a *bonâ fide* resignation; whilst another quorum at the next Council meeting construed Mr. Bell's communication differently, (why it was entertained and discussed on these successive occasions we cannot guess,) and regularly reversed the proceedings of their predecessors. It came out, too, among the disclosures of Saturday last, that on those meetings of the Council a few individuals, by their superior influence and the deference paid them by their colleagues, used to carry every thing their own way. Were it not that facts prove how ill the affairs of the University have been conducted by the Council generally, we should be strongly inclined to regret that those monopolizing councillors did not carry every thing more firmly and more frequently in their own way. Herein, as we always thought, lay the prime and fundamental error of the management of this institution. It has been always without a

visible head: there was wanting, from its very commencement, some single supreme power of control over it—some dictator in the last resort—some provost—some “schoolmaster.” And, by the way, what has become of Lord Brougham? Has the Lord Chancellor deserted his own offspring in its difficulties? Is it *infra dig.* in him any longer to take an active part in the concerns of the London University? Or will he transfer in future his patronage to the rival establishment, of which, by virtue of his office, he is a perpetual Governor? It would seem as if it were so. In the hour of her distress, the countenance of her great protector is wanting to the London University. Neither by self or by proxy, by letter or by message, did Lord Brougham evince on the occasion of the last meeting that he took any, the least interest, in the affairs of the institution. This circumstance, we cannot help thinking, looks rather ominous.

A word or two about the Medical School, and we have done. Of course, allusion to the never-dying disturbances in this part of the establishment could not be avoided at Saturday's meeting; but it was a sore subject, and treated accordingly with a convenient briefness. One little particular, however, transpired, to which we must advert. It seems it is the wish or the intention of the Medical Professors to get rid of a certain unpopular individual who fills a chair amongst them, and they know not how they can do it better than by “buying him out”—by bestowing on him a retiring pension, an annuity for his life; while it is by no means so clear that the said individual will condescend to accept any such benevolence; and the Council are resolved not to interfere. This is a pretty pass to which *the system* pursued in Gower-Street has brought the several parties; this is the result of the management of the en-

lightened Council with respect to the professorships. The professorships, forsooth, were to be quite independent. Gentlemen were appointed to them before their respective duties were marked out; and consequently the most of them fell a-squabbling, each wishing to secure as ample a domain for himself as he could. Meanwhile, one individual renders himself particularly obnoxious to his pupils, his brother professors, and, of course, to the Council and all who have the interests of the institution at heart. Yet this individual cannot be removed without being *bribed* to go away. Were it not really no laughing matter, we should compare the situation of the parties to the “dead-lock,” in the famous tragedy of the Spanish Armada, where the *dramatis personæ* are each at the other's mercy—each, with dagger drawn, about to stab and be stabbed. Here are the Council, the individual in question, the pupils and the professors, all “at a dead-lock.” If the Council move against the professor, they establish a dangerous precedent, and seem to succumb to the pupils—if the unpopular man moves one way or other, he either provokes the pupils to further violence, or compromises his own character—if the pupils are not kept quiet, business cannot proceed—and if the Professors stir, except, perhaps, in the soothing way, there is clearly a house divided against itself. Now, what is to be done? Why, the parties must let fall their daggers “in the Queen's name”! or—in the name of the Committee of Inquiry! A little patience, and we shall see the issue.

This “buying out” is a very absurd thing. For the sake of decency and the respectability of the profession, we hope we shall hear no more about it. It is a mean and paltry mode of proceeding, and disreputable it cannot but appear in the eyes of the public. It condemns the individual, by acknowledging the

propriety of his removal; while it betrays the weakness of his judges in being thus obliged to chaffer with him, and to treat him in anything but an open straightforward way.

ARE FUMIGATIONS TO BE TRUSTED IN CHOLERA ?

As we anticipated, in a former number, various proposals have been made to the Board of Health, with a view of disinfecting the passengers and cargoes of vessels arriving from the Baltic. It is said that Sir William Pym has been to the coast, superintending certain trials with chlorine, and we are told that the experiments were performed "with great effect." We profess not to understand this. We learn that hales of various kinds of merchandize had portions of litmus paper introduced in various situations, after which they were exposed to the action of chlorine gas, and with the uniform consequence of reddening the test papers. This, which we presume to be the "great effect" alluded to, is a change which the weakest acids—even carbonic—readily produced, and though striking to the eye of the by-stander, proves nothing whatever with regard to the question at issue. The application of any fumigating process assumes that there exists some infectious matter to be destroyed; but it is quite clear that no experiment can by possibility be devised which shall prove that the deleterious principle has been neutralized, short of exposing persons to the influence of whatever is supposed to have contained it. If persons so exposed become affected with the disease, the proof that the fumigation had been inefficient would be convincing, though most persons would probably think the knowledge had been purchased at too dear a price. But if, on the other hand, the persons so exposed were not attacked with cholera, it might be taken as proving one of

two things—either that the chlorine had destroyed the infectious principle, or that no such principle, capable of being transmitted by merchandize, existed. The chlorides have been extensively tried in Moscow, and other parts of Russia, under far more favourable circumstances for judging of their effects than fortunately exist in this country; and they have been found wanting. Again: we suspect that the power of these agents, in preventing the propagation of diseases really contagious, has been over-rated. They destroy disagreeable smells in a very remarkable degree, but as infection may be communicated where there is no perceptible odour, so it does not follow that neutralizing smell necessarily annihilates atmospheric contamination. We know that, not long ago, chlorine was fully tried at the Small-Pox Hospital, with a view of arresting the progress of erysipelas:—all offensive smell, as usual, was overcome, but the power of communicating the disease remained behind.

Such fumigations are liable to this very serious objection—that, to render them of sufficient strength, they must be used in confined spaces; and this, which is intended to increase the power of the antidote, also concentrates the poison to be overcome. Accordingly, it is expressly stated, that at Moscow, where fumigations with chlorine were thus used, a much greater number of the attendants of the sick became affected with cholera than when they abandoned all fumigation, and trusted to open windows and free currents of pure air. Dilution of the noxious principle seems, then, to be the best means of rendering it inert; and this whether it arise from the bodies of the infected, or depend upon some atmospheric change of a less obvious nature. It would cost the country many thousand pounds to carry this

plan of fumigation into effect; and as it is not in the nature of things that any demonstrative evidence can be adduced in its favour, so, at best, it could only be regarded as an experiment in the highest degree perilous, if the disease be infectious, and wholly useless, if it be not.

We do not make these observations from any apprehension that either Sir William Pym, or the other members of the Board of Health, will draw premature conclusions, but because we perceive that others have already done so. There are two parties interested in favour of fumigation as a substitute for quarantine;—those to whom carrying this mode of purification into effect would be a source of emolument, and those to whom the delay caused by the present system is inconvenient. As under these circumstances a portion of the public press has thought fit to offer an opinion favourable to the measure, we take leave through the same medium to enter our protest against it.

THE PUFF DIRECT.

DURING the last few weeks the subject of cholera has given rise to a curious display of the various modes of puffing. We have had writers in the newspapers of all descriptions, and of all grades—from Sir Anthony Carlisle to Sir Charles Aldis; and it is amusing to observe, that among these amateur guardians of the public welfare, the only principle common to all is, that of holding each other in great contempt. Among these disinterested gentlemen, one has particularly attracted our admiration, by the modesty of his pretensions: while most of the others content themselves with the puff oblique, merely giving their names and addresses, with somewhat more than the necessary degree of precision, with a few hints at their superior skill, *he* reduces the

business to mathematical calculation, and states in round numbers the proportion of those applying to him whom he will undertake to cure. “I have had (says he) hundreds of patients affected with the cholera morbus, scarcely one of whom died; and if, to-morrow, I had a thousand patients similarly attacked, not one in a hundred out of the thousand would be carried off by it.” The writer very prudently omits any allusion to the method he employs; contenting himself with declaring all others to be wrong, and with informing the public where he is to be found in case of need. This letter has been inserted (in our opinion, to the prejudice of the revenue—for it is a mere advertisement) in one of the morning papers, and professes to be the production of a regular surgeon; whom, however, we shall not gratify by giving farther publicity to his name. The *Times* has taken a very proper view of this subject, and has declined to insert these impudent specimens of quackery, with which we blush to learn that the Editor’s table is actually loaded: the *quare peregrinum*, with which their receipt is acknowledged, sufficiently shews the estimation in which our contemporary holds the writers. Such a system of quackery is very disgraceful to the profession, and we know has been received by the discerning part of the public in the contemptuous manner it deserves.

PICKLING A SOLDIER.

THE *Observer* of last week describes in terms of strong reprobation a military punishment which recently took place. The writer, in allusion to the sufferers, says, “the torture they endured was shocking to humanity, and their shrieks were horrid and terrific: they were taken from the halberts when nature appeared to be exhausted, and carried to the hospital, where their backs were

pickled!” Now in the eyes of all well-informed men, this last statement converts the whole affair into burlesque. If the writer believes what he asserts, he must be an extremely ignorant person: If he does not believe it, then we venture to suggest to him, that however strong his feelings on the subject may be, it were better in giving vent to them to keep within the bounds of truth—or, at least, of verisimilitude. When a soldier who has been “punished” is taken to the hospital, his back is covered with large pledgets of linen dipped in a cooling lotion, being the application which is of all others most soothing to the part, and most calculated to keep down inflammation. Military discipline can do much; but it has not yet learnt to make executioners of medical officers, or to convert that which has been appropriately termed the “healing” art, to the purposes of torture.

FALSE ALARM ABOUT CHOLERA.

A few days ago some alarm was produced, in consequence of one of the morning papers announcing the occurrence of a case, having all the characters of malignant cholera, at St. George's Infirmary. Fortunately a Coroner's inquest was held on the body, and the fullest opportunity thus afforded of contradicting this mischievous fiction. The individual in question laboured under the usual effects of an acrid substance received into the stomach; and from a letter found upon him, in which he took leave of his friends, as well as from his admitting that he had swallowed some “medicine” which he had procured from a friend, there is no reason to doubt that he had intentionally taken poison. The indiscretion of giving insertion to such paragraphs at the present moment, without previously instituting the necessary inquiry, cannot be too strongly condemned.

PARLIAMENTARY PAPERS RELATIVE TO CHOLERA MORBUS.

GREAT part of the information in the subjoined papers has been anticipated in the pages of this journal; still we have deemed it right to place on record some of the original documents, selecting those which contain the greatest number of facts. We shall continue to give the reports of the Board of Health as they may from time to time appear.

REPORT on the Cholera Morbus, discussed and agreed to in the Extraordinary Committee established at Moscow, by order of His Majesty the Emperor.

AN extraordinary committee, composed of the most eminent public officers, has been established at Moscow, by order of His Imperial Majesty, for the purpose of discussing the expediency of a general purification of all merchandize in Moscow after the cessation of the cholera morbus in that capital. The committee, in consequence, proposed the following question to the members of the provisional medical council. Can goods or merchandize communicate the cholera morbus? and in case of an answer in the affirmative, what is the degree of the intensity of the contagious principle? The result of the examination of the opinions of the twenty-four members of the council is, that three of them admit, it is true, the possibility of contagion by means of goods and merchandize, but under certain conditions: eighteen entirely reject it. One member admits it; but from the experiments which he has made, he does not think fumigation necessary. Another member recommends the adoption of this measure, but only for the purpose of tranquillizing men's minds. Finally, another declares that he knows no fact which proves the communication of the cholera morbus through the medium of material objects. He thinks, however, that it will be useful to apply fumigation to some kinds of merchandize, such as cloth, by employing chlorate of lime, and merely to expose all other goods to the air. The committee having given to the examination of this subject all the attention which the importance of the question demanded, and which the orders with which they were honoured by His Imperial Majesty enjoined them, have unanimously come to the following conclusions:—

1st. The quarantine regulations relative to the purification of goods and merchandize have been established from observations made on the plague; they have therefore been adopted, under the present circum-

stances, entirely by conjecture. Nevertheless, it was impossible to avoid adopting these regulations as long as the contagious influence of the cholera morbus, and the means by which it spreads itself, were not yet determined by accurate observations. It is necessary, then, to replace these ancient regulations by others more appropriate to the new disease, and equally founded upon evident facts.

2d. It has not hitherto been possible to collect in any place in the empire so many accurate observations on the cholera morbus, nor to unite on one spot so many able physicians, as at Moscow, where, during the three last months, more than 7500 sick were treated by the care of the provisional medical council, and 52 bodies dissected. It is only, then, in this capital that the examination of all the opinions pronounced on the cholera morbus, opinions hitherto conjectural, contradictory, and founded on a small number of equivocal or ill-observed facts, can be proceeded in with the best chance of success.

3d. Although the members of the provisional medical council have not pronounced an unanimous opinion relative to the communication of the cholera morbus by means of goods and merchandize, nevertheless the majority at least pronounced against this hypothesis, and the opinions of the minority destroy themselves. They offer many contradictions, and do not correspond with known facts. For example, a member advances, "that the virus of the disease (*virus morbigique*) of the cholera morbus is not so subtle as that of the plague;" he then adds, "that it is proved, by a great number of examples, that persons in health have been attacked by the epidemic, from having made use of beds or clothes which had belonged to victims of the cholera." In fine, he maintains, "that it is more by analogy than from positive experiments, that it may be affirmed that goods which communicate the plague would equally communicate the cholera morbus." If this member merely founded his opinion on the analogy which he believes to exist between the plague and the cholera, it would follow, that he ought not to have mentioned the number of examples which he might have observed, even on the supposition that a physician who only treated three hundred cases of cholera, may have been able to collect an infinite number of observations. In fine, his assertion on the analogy between the cholera and the plague is in contradiction with the difference which he himself says ought to exist between the contagious principles of these two diseases. The second member who declares the cholera morbus contagious, expresses himself in these terms: "This epidemic disease cannot arise either from a change of temperature or from the nature of the food, or from confined habitations, or from bad

clothing;" while he subsequently refutes himself by saying, "aged people, or those who lead an irregular life, those who are subject to catch cold, or to stomach complaints, or in fine, who are not regular in their diet, are more exposed than others to the action of the cholera morbus." The third member of the minority gives the following example in support of his conviction of the possibility of the communication of the cholera morbus by goods and merchandize: "An individual who was suffering of a quinsy was attacked by cramp in his legs, from having bathed his feet in a vessel which had been used to empty the bath of a *Cholériste*." Still if in truth the cholera morbus spreads itself in this manner, it is not probable that such a case should be observed but once during the treatment of more than 7500 sick. It must then be concluded that the cramp was brought on by some other cause, which has escaped the investigation of the physician.

4th. On the contrary, the opinion of those who do not admit the possibility of contagion, by means of material objects, has for its support both the majority of voices and the scrupulous observance of facts. The members of the medical council have been convinced by their own experience, as also by the reports of the physicians of the hospitals, that, after being in frequent and even habitual communication with the sick, their own clothes have never communicated the disease to any one, even without employing means of purification. Convalescents have continued to wear clothes which they wore during the disease, even furs, without having them purified, and they have never had a relapse. At the opening of bodies of persons who had died of the cholera, to the minute inspection of which four or five hours a day for nearly a month were devoted, neither those who attended at these operations, nor any of the assisting physicians, nor any of the attendants, caught the infection, although, with the exception of the first day, scarcely any precautions were used. But what appears still more conclusive, a physician who had received several wounds in separating the flesh, continued his operations, having only touched the injured parts with caustic. A drunken invalid having also wounded himself, had an abscess, which doubtless showed the pernicious action of the dead flesh, but the cholera morbus did not attack him. In fine, foreign Savans, such as Moreau de Jonnes and Gravier, who have recognized, in various relations, the contagious nature of the cholera morbus, do not admit its propagation by means of goods and merchandize.

5th. A member of the committee justly observes that the trade of Moscow, after having languished at the time the cholera morbus reigned there with all its force, recovered its activity in November, when the

epidemy was becoming weak, and that since the first cold, there has been a considerable circulation of merchandize, as well of that manufactured at Moscow as imported into it. Moreover, if the germs of the contagion had been concealed, their action would have shown itself either in individual cases, or in the return of the ravages of the epidemy through the town, and in the increase of the number of victims. This not having taken place, it is conclusive that the disease does not spread itself through the medium of material objects.

6th. On the contrary supposition, the result would be, that since 1500 of the 7300 above-mentioned sick were taken care of at home, and in consequence exempt from the active superintendence of the medical police, the articles (effects) with which their houses were furnished, and with which the sick were in constant contact, would rather tend to spread the contagion than merchandize deposited in magazines which had not been touched by any one. It would become then much more necessary to purify effects shut up in every house in Moscow, than the merchandize. The almost total cessation of the epidemy evidently shows that no general contagion has taken place by means of the above-mentioned effects, the purification of which would be besides very difficult and even impracticable. Even after the plague, all the houses at Moscow were not purified, but only those in which sick were known to have been, or of which the inhabitants were dead.

7th. Even supposing that (which however is only conjecture) the cholera morbus was effectually propagated by merchandize brought from the fair of Nizni Novgorod, it would result as this merchandize has been spread not only in Moscow but as far as St. Petersburg, and a number of other towns, and in great part distributed to the consumer, either that the contagion did not exist in the merchandize at Moscow more than at St. Petersburg, or that it is necessary to purify St. Petersburg, and the other towns which have received the merchandize from the fair of Nizni Novgorod, in the same manner as the city of Moscow would be purified.

8th. But even if, without attending either to the evidence of the proofs which establish the impossibility of contagion by merchandize, or to the want of accurate observations, which might serve to establish the contrary, it should be decided through excess of precaution to purify all the merchandize in Moscow, this measure would not be the less followed by consequences which demand all the attention of Government. The alteration of the colours and of the lustre of the merchandize would produce a sensible diminution in their value, and the loss of considerable capitals; trade would for a long time stand still, many establishments of in-

dustry would be ruined, and thousands whose livelihood depends upon the manufactories would be reduced to a frightful state of misery.

9th. From these considerations the committee have concluded, in conformity with the order of his Majesty the Emperor, of the 25th of August last, that it is not necessary to subject the merchandize to fumigation in those places where the cholera morbus has existed.

The report of the committee has been submitted by supreme order to the examination of the council of ministers, which has judged the conclusions to be founded upon evident facts, and has ordered them to be printed and transmitted to all the Governments, to tranquillize men's minds, which order has received the confirmation of his Majesty the Emperor.

REPORT of Dr. Albers, a Prussian Physician, on the Cholera Morbus; dated Moscow, 31 March, 1831.

Dr. Albers, a Prussian Physician, at the head of a Commission sent by the Prussian Government to Moscow, to ascertain the nature of the Cholera, under date of March 31, 1831, writes as follows:—

On the nature of the distemper, and the question which is so very important to us, in how far the cholera is contagious, there prevails as yet the greatest diversity of opinions. Under the supposition, which we look upon as erroneous, that this question is to be decided on the facts hitherto known, which are connected with the nature of recorded infections, two parties have formed themselves, those of the contagionists and anti-contagionists, the former particularly among the authorities and physicians of St. Petersburg, and the latter among the faculty and inhabitants of Moscow, who almost all of them strenuously maintain that cholera is not contagious. Both parties cite facts which are met with point blank contradictions by the opposite party, whence the unprejudiced inquirer finds it as yet impossible to form a conclusive judgment. The vastness of the Empire, the very unsatisfactory manner of the few reports sent in, the uncertainty of depositions, influenced frequently by personal motives, and the almost totally interrupted correspondence by letters, offer so many obstacles to inquiry, that even with the best intention it is often only possible in part to overcome them.

When the cholera first reached Moscow, all the physicians of this city were persuaded of its contagious nature, but the experience gained in the course of the epidemic has produced an entirely opposite conviction. They found that it was impossible for any length of time completely to isolate such a city as Moscow, containing 300,000 inhabitants, and having a circumference of nearly

seven miles (versts ?), and perceived daily the frequent frustrations of the measures adopted. During the epidemic it is certain that about 40,000 inhabitants quitted Moscow, of whom a large number never performed quarantine; and notwithstanding this fact, *no case is on record of the cholera having been transferred from Moscow to other places*, and it is equally certain that in *no situation* appointed for quarantine, *any case of cholera has occurred*. That the distemper is not contagious, has been yet more ascertained by the experience gathered in this city. In many houses it happened that one individual attacked by cholera was attended indiscriminately by all the relatives, and yet did the disease not spread to any of the inmates. It was finally found that not only the nurses continued free of the distemper, but also that they promiscuously attended the sick chamber, and visited their friends, without in the least communicating the disease. There are even cases fully authenticated that nurses, to quiet timid females labouring under cholera, have shared their beds during the nights, and that they, notwithstanding, have escaped uninjured, in the same manner as physicians in hospitals have, without any bad consequences, made use of the warm water used a moment before by cholera patients for bathing.

These and numerous other examples, which during the epidemic, (we ought, perhaps, to call it endemic), became known to every inhabitant of Moscow, have confirmed the conviction of the non-infectious nature of the disease, a conviction in which their personal safety was so much interested.

It is also highly worthy of observation, that all those who stand up for contagion *have not witnessed the cholera*, which is therefore especially objected to their opinion by their opponents. But in the very difference of the conviction of those who have to combat the violence of the distemper, and are likely to be more impressed by the facts, and of the conviction of such persons as can observe only at a distance, and are therefore more unbiassed judges of the results, will perhaps be found materials for the solution of a question so much controverted. The same was the case on occasion of the question relative to the yellow fever. It was only after a calm examination of all the results, that it became possible to refute the error of those physicians who had collected their experience during their daily and fearless intercourse with the distemper, and had arrived at the conviction of its non-contagious nature.

In the instance of the cholera, the question becomes more difficult of decision; because if the cholera be at all contagious, of which I myself am not doubtful, in spite of all that is maintained here, such contagion

differs from the nature of all known contagions, and seems to approach nearest to that of the typhus. With whatever obstinacy the correctness of the facts is disputed by the anti-contagionists, it still appears highly probable, that the cholera may be communicated by persons proceeding from one place to another, and may lay the foundation of a fresh epidemic, if circumstances favour the communication.

It is greatly to be lamented, that neither of the contending parties is able to produce such authentic documents, and to set on foot such investigations on the spot, as would silence every contradiction; for as the state of the question now is, we must be satisfied with probabilities.

Only one point seems to be completely made out by testimonies innumerable; namely, that the cholera is not communicated by articles of merchandise, or by any inanimate objects. This principle, as I have already had the honour of reporting some time ago, has been adopted by the public authorities of St. Petersburg, and been acted upon now for nearly three months, without any sinister consequence having ensued. The only quarantine establishment still kept up is between Moscow and St. Petersburg; every traveller, after staying there for a fortnight, may proceed without further detention; all mercantile commodities and effects pass without being stopped.

On our journey hither, we met many thousands of sledges loaded with goods, going from Moscow to St. Petersburg. As the rates paid for the carriage are extremely reasonable, any stoppage in their conveyance would prejudice the merchant; hence the carriers, as I myself saw, proceed no further than the barriers of the quarantine establishment, and remain there, as far as their persons are concerned, and their sledges alone pass through, which being met on the other side by their partners or servants, are taken on without hindrance. The result of my own daily experience, therefore, perfectly agrees with the above stated principle; namely, notwithstanding all my inquiries, *I have met with no instance which could render it at all probable, that the cholera is disseminated by inanimate objects*.

FIRST REPORT OF THE COLLEGE OF PHYSICIANS ON THE CHOLERA.

College of Physicians, June 16th, 1831.

To the Lords of His Majesty's Most Honourable Privy Council.

We, the President and Fellows of the Royal College of Physicians in London, having carefully considered all the papers which have been transmitted to us by order of your Lordships, have agreed upon the following report:—

That the evidence submitted to us, in the documents sent to the College by the Lords of His Majesty's most Honourable Privy Council, warrants an opinion that the disease called cholera in Russia is communicable from one person to another.

Although these documents contain some statements which lead us to doubt whether this infection is conveyed by merchandize or not, yet, until we have further information, we recommend that articles of merchandize admitted into this country, from infected places, should be submitted to the usual regulations of quarantine.

In the name of the College,
(Signed) HENRY HALFORD, Pres.

(Signed) FRANCIS HAWKINS, Regist.

SECOND REPORT.

To C. C. Greville, Esq.

College of Physicians, June 18, 1831.

SIR,—In compliance with the further wishes of the Lords of His Majesty's most Honourable Privy Council, that we should state in detail the reason of the opinion contained in our report, dated June 15th, we beg to submit to their Lordships the following statement, observing at the same time, that the information in the documents laid before us is deficient on some important points, particularly with respect to the description of the disease.

Our knowledge of the symptoms of the disease, called cholera morbus in Russia, is derived entirely from a report drawn up by Sir W. Crichton at St. Petersburg, for the Medical Council of that capital, from reports of medical practitioners in different parts of Russia, where the disease had appeared. We have, however, no direct information from any Russian or other physician who had actually seen the disease. The remarkable facts attending its progress and manner of extension over the vast tract of country in which it has successively appeared, are as follows:—It showed itself at Astracan, near the mouth of the Wolga, on the 20th of July, 1830, immediately after the arrival of a vessel there from the port of Bakon, on the western coast of the Caspian Sea; on board which vessel, during the passage, eight men had died of the disease. From Astracan it spread itself in an eastern direction to Gourief, and far up the course of the river Owrab; and at the same time proceeded northward, in a course following strictly the great line of river communication of the Wolga; affecting successively all the principal towns on each bank of the river, as far to the north as Yaraslav, and at dates corresponding with the ordinary rate of the navigation up this stream. The earliest deaths at each place usually occurred among the boatmen employed in the navigation.

It is an important fact, that while thus ascending the course of the Wolga in a north direction, it was contemporaneously conveyed down the course of the Don in a south-west direction to the sea of Azof, and to the coasts of the Black Sea, and details are given, warranting the belief that it was carried by personal intercourse across the neck of land which separates these two great lines of water communication.

The disease appeared at Moscow in the first or second week of October, alleged to have been brought thither from Saratoff, an infected town on the Wolga. At Moscow it prevailed during the coldest months, having first appeared in the south part of the Russian dominions during the hottest season of the year. Quarantine was established on the road from Moscow to St. Petersburg. Upon this road the disease has never extended itself; but upon another line of approach to St. Petersburg from Saratoff, where no quarantine was established, the disease advanced as far as Tikhvin, within 160 miles of Petersburg, where it appears also to have been arrested by quarantine.

It is important to mention here, that the Moravian colony of Sarepta, on the right bank of the Wolga, several German colonies in the government of Saratoo, around which the disease raged with great severity, and the school of Military Cadets at Moscow, were exempted altogether from the disease; strict precautions having been used in each of these several instances to prohibit all intercourse with the surrounding population.

The mode of ingress of the disease into Podolia and Volhynia is not equally certain; but it appears to have followed the great lines of communication between the southern parts of Russia and those provinces, and to have accompanied the march of the armies in this direction.

The disease appeared very early in May on the road between Posen and Warsaw, and in the army of the Grand Duke Michael; subsequently at Praga and Warsaw, and in the Polish armies. A report, drawn up by a Board of Health at Warsaw, and transmitted to the French government, and thence to the English government, gives a statement of the numbers infected during seven days in the hospitals of Warsaw and its neighbourhood.

The latest accounts we have before us are those regarding the extension of the disease to the sea-ports of Riga and Dantzick, on the Baltic, and the great mortality which has occurred in the former of these places.

From the progress of this disease, uninfluenced by latitude or by seasons, through various districts in the Russian empire, following gradually the courses of great rivers and roads, in other words, the general lines of traffic and communication, and from the fact that different towns situated in its route

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were exempted from its visitations by establishing a system of non-intercourse, we are of opinion that the disease called cholera morbus in Russia is of an infectious nature. Our decision is corroborated by the opinion of Sir William Crichton, of St. Petersburg; by the measures taken by the Russian and Prussian governments; by the statement of the English physician, Dr. Walker, sent from St. Petersburg to Moscow, who, after much hesitation, decided peremptorily in favour of contagion; by that also of Dr. Albers, sent by the Prussian government, who first entertained a suspicion that the disease was contagious, afterwards doubted, and at last determined upon its contagious nature. We beg again to call your Lordships' attention to the circumstance, that neither the statements of Dr. Walker, nor those of Dr. Albers, nor those of the report of the Committee of Health at Warsaw, contain any description of the symptoms of the disease.

We have not evidence before us sufficient to decide whether this disease be communicable by merchandize or not; there are some statements which appear to support the latter opinion, but they are neither numerous nor distinct enough to convince us that this disease does not and will not observe the laws which regulate other infectious disorders.

Should the government be enabled to lay before us hereafter a more precise account of the disease, and a more enlarged statement, by which the propagation of its infection may be distinguished from that of other infectious diseases, we shall be very ready to reconsider our opinion. But until such information can be obtained by us, called upon as we are to consider the security of the public, we can give no other opinion, with respect to the transmission of the disease by merchandize, than that we think the safety of the community will best be consulted by submitting merchandize to the usual regulations of quarantine; and we can at present make no other distinction of articles than is made by the law established for this purpose.

Signed, on behalf of the College, by
HENRY HALFORD, President.
FRANCIS HAWKINS, Registrar.

REPORTS OF CASES OCCURRING AT PUBLIC INSTITUTIONS.

GUY'S HOSPITAL.

Concussion of the Brain, with Laceration of one of the Anterior Lobes.—Death.

WILLIAM BROKER, the surgery man at Guy's Hospital, was found lying at the bottom of the surgery stairs between ten and eleven at night, on the 18th of May, 1831, in an insen-

sible state, having; it is supposed, in attempting to descend them fallen down, being at the time intoxicated. It is not exactly known how long he had lain; but about three quarters of an hour before he was found, he had been seen going towards the surgery. On examining him there appeared to be a contused wound on the hinder part of the right side of the head, from which there had been considerable hæmorrhage; it was merely a scalp wound, about two inches long; did not penetrate the tendon of the occipito-frontalis muscle; and no fracture could be detected. He was insensible, and could not be roused more than just to mutter "Oh dear!" when sharply pinched, or loudly called to. Pulse very feeble, small, and slow; extremities cold; pupils slightly dilated, but contracted freely on the admission of light; restless; no sickness; breathing slow, but not at all stertorous.

Twelve P.M.—Extremities warmer; pulse slightly improved, but still very feeble.

19th, eight A.M.—Pulse has more power; extremities warm; still insensible; carotids pulsate actively.

Head to be shaved, and to take gr. vi. of Calomel immediately; and an hour afterwards a draught of Sulphate of Magnesia, with infusion of Senna.

Two P.M.—Pulse still rising; bowels not opened.

Venæsection.

Though a large orifice was made in the vein, the blood did not flow freely; and when ʒi. had been drawn the pulse became intermittent.

To have a Colocynth enema.

Eleven P.M.—Bowels twice opened; pulse has again risen, and is sharper; bleeding repeated to ʒxviii., during which the pulse rose and became rather fuller.

Sulphat. Magnesie, ʒi. Inf. Rosæ, ʒi. 4ta qq. hora sumend.

20th, A.M.—Pulse 54, small, and very weak; exceedingly restless; extremities cold; cannot be roused; bowels opened freely, and he appears conscious when he has a motion; pupils natural; no unusual heat of scalp; has had two slight attacks of spasm of right side of face in the night.

R Pulv. Jacobi, gr. iiii. Hydr. Submur. gr. ii. ter die sumend.

Blood drawn yesterday not inflamed.

P.M.—Much the same.

21st, A.M.—No sleep; has now repeated attacks of spasm of right side of face; bowels opened; is exceedingly restless, thirsty, and drinks without difficulty; wound in scalp healed; mouth slightly affected by calomel. The only words that can be got from him are,

"Oh dear!" though he evidently hears when spoken to, and sometimes appears to understand what is said; he lies, when free from spasm, as though sleeping; and if roused, seems as if just waking from a dream.

Continue medicines, and apply a blister to the nape of neck.

P.M.—Right side of face, tongue, and muscles of deglutition, continually affected by spasm—so much so, that he is unable to swallow even drink; left upper eyelid constantly twitching; right eye abducted—appears rather more prominent and suffused than the left; pulse rather stronger, and much quicker, being now 96; bowels opened once; very restless, so as to make it necessary slightly to confine him in bed.

22d, A.M.—Passed a much quieter night, and is better this morning; pulse 68, steady, without much power; the abduction and suffusion of right eye not so perceptible; spasmodic attacks not so frequent or violent; muscles of deglutition but little affected, and can now drink freely; blister slightly risen; bowels freely opened; passed plenty of water; skin moist; pupils a little contracted; feet warm.

Blistered surface to be dressed with Savine Cerate.

P.M.—Frequency of spasmodic attacks lessened; there is now a considerable interval between them; pulse 76, small and steady; is more sensible; when spoken to appears to know what is said, and attempts to answer, but before he can, seems to forget what he intended to say; pupils contracted; tongue dry in the middle, moist at the edges, and when protruded is drawn to the right side; no heat of scalp; is thirsty, and drinks freely.

23d, A.M.—Not so well; no sleep; has been restless during the whole of the night; fits have recurred more frequently; bowels opened without consciousness; pulse 100, rather sharp and incompressible.

Venæsectio, $\frac{3}{4}$ iv. Continue medicine.

P.M.—Blood cupped and buffed; for a little while after bleeding was quieter, but is now more restless; fits still more frequent; pulse 108, and sharp; mouth affected by mercury.

Repeat V. S. ad $\frac{3}{4}$ x.

This affected the pulse, which became soft and running.

24th, A.M.—Pulse 120, thready; fits more frequent, occurring every few minutes, often affecting the whole of the right side of the body; has had no sleep; blood drawn last night inflamed; both eyes drawn towards the right side; left eye rather dilated, right

contracted; bowels open; stools dark and offensive; tongue dry and furred; abdomen appears tender, as, when pressed upon, he seems uneasy.

P.M.—Spasm of face incessant, and the whole of the right side of body very often attacked by it. After these attacks he lies in a most exhausted state, gasping for breath. Pulse variable; left eye dilated, right contracted; is more sensible, but does not answer when spoken to; he appears to be blind of the right eye, but to see distinctly with the left, as, when drink is held on the left side, he immediately puts out his hand towards it, but if held on the right side, and the left eye is at the same time closed, he does not take any notice of it.

25th.—Passed a wretched night; spasm continues with, if possible, increased violence: left eye still more dilated, right more contracted, and insensible to any stimuli; pulse 160, and exceedingly small; is fast sinking.

Noon.—Died.

Examination four hours after Death.—This examination was most satisfactory, agreeing exactly with the symptoms shown during life, and with the prognosis that had been given. Skull sound; dura mater uninjured; a small quantity of blood effused on the surface of the brain, directly underneath the scalp wound, and a much more considerable quantity on the left hemisphere directly above the ear, with superficial laceration of the brain. In the fore-part of the anterior lobe of the left hemisphere was a considerable laceration, to some depth in the substance of the brain, and which was surrounded by a yellowish hue: this laceration was precisely opposite the external wound on the back part of the right side of the head. On the base of the right anterior lobe was a small lump of coagulated blood, situated near the decussation of the optic nerves, and which pressed laterally upon the right; thus accounting for loss of vision in that eye. The brain throughout was of an unusually soft consistence, and exhibited in a remarkable degree, by pressure between the finger and thumb, that easy separation of the external layers of the convolutions so often noticed in drunkards. The cerebellum was healthy. N.

ERRATUM.

In Dr. Prout's last lecture, page 390, line 22 from bottom, instead of "elements of carbonate of ammonia and water," read, "elements of carbonate of ammonia when combined with water," that is to say, one proportion of urea, combined with one proportion of water, form together precisely the elements of carbonate of ammonia.

W. WILSON, Printer, 57, Skinner-Street, London.

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SATURDAY, JULY 16, 1831.

LECTURES

ON

MEDICAL JURISPRUDENCE,

Delivered in the University of London.

By PROFESSOR AMOS.

ON INSANITY.

*Liability of Lunatics for their civil Contracts—
Opinions of the Ecclesiastical Courts—Nature
of "Lucid Intervals"—Wills set aside on the
ground of influence exerted on the Testators—
Law touching Certificates for the Confinement
of Insane Persons.*

GENTLEMEN,—On the last occasion we considered the subject of insanity as connected with commissions of lunacy and soundness of mind; and as connected with criminal responsibility, and the sense of right and wrong. I shall commence the present lecture with saying a few words respecting a third and different view of lunacy—the liability of lunatics for their civil contracts. This subject has been very much cleared up by two late decisions of Lord Tenterden, though the law still remains in some points unsettled. The first was in the case of *Baxter, a tradesman, v. the Earl of Portsmouth*. A verdict had been found for plaintiff, but the defendant had leave to move to enter a nonsuit, on the ground that he was a declared lunatic; and a rule nisi for that purpose being applied for, his Lordship decided as follows:—

"I was of opinion at the trial that the evidence given on the part of the defendant was not sufficient to defeat the plaintiff's action; it was brought to recover charges for things suited to the state and degree of the defendant, and actually ordered and enjoyed by him. At the time when the orders were

given and executed, Lord Portsmouth was living with his family, and there was no reason to suppose that the plaintiff knew of his insanity. I thought the case very distinguishable from an attempt to enforce a contract not executed, or one made under circumstances which might have induced a reasonable person to suppose the defendant was of unsound mind. The latter would be cases of imposition; and I desired that my judgment might not be taken to be, that such contracts would bind, although I was not prepared to say that they would not. Upon further consideration, I find no reason for thinking that my direction to the jury was erroneous, or that the verdict should be disturbed."—Rule refused.—5 *Barn. and Cresw.*, 172. And in the case of *Broune v. Joddrell*, on a similar plea being offered for the defendant, his Lordship expressed himself in these terms:—"I am not unwilling to receive the evidence offered; I think, however, the defence will not avail, unless it be shown that the plaintiff imposed on the defendant. The old cases go the length of saying that a party shall in no case be allowed to set up his own insanity. That, I think, is too general a rule: if you can show that any means were used to impose upon a person of weak or unsound mind, I think that in this, as in all other cases of fraud, it is an answer. I once acted on this rule, and my opinion was confirmed by the court." Verdict for the plaintiff.—1 *Moody and Malkin*, 105.

A person who has been a lunatic, has been allowed, after recovering his reason, to avoid a marriage made whilst he was a lunatic; and this, although there had been no commission of lunacy taken out against him. I will read a little of this case, as shewing the opinions of the Ecclesiastical Courts as to what degree of insanity will avoid a marriage.

"*Turner v. Meyers*.—This was a case of proceeding to annul a marriage, on the plea of insanity, instituted on the part of the hus-

band, after his recovery.—Sir Wm. Scott: This is a suit brought by a man to set aside his marriage on the ground of his own incapacity at the time alleged, though at other times he is pleaded to have been capable. The suit was first brought by the father, but the son being of age, and there being no means of making the father guardian, or *curator ad litem*, the Court was of opinion, that the suit could not proceed in that form. It has, therefore, since assumed its present shape. It is, I conceive, perfectly clear in law, that a party may come forward to maintain his own past incapacity, and also that a defect of incapacity invalidates the contract of marriage, as well as any other contract. When a commission of lunacy has been taken out, the conclusion against the marriage will be founded on that statute; where there has been no such commission, the matter is to be established on evidence. The statute has made provisions against such marriages, even in lucid intervals, till the commission has been superseded. In other cases, the Court will require it to be shown, by strong evidence, that the marriage was clearly had in a lucid interval, if it is first found that the person was generally insane. Madness is a state of mind not easily reducible to correct definition, since it is the disorder of that faculty with which we are little acquainted; for all the study of mankind has made but a very moderate progress in investigating the texture of the mind even in a sound state. In disease, where it has pleased the Almighty to envelop the subject-matter in the darkness of disease, it will probably always continue so; but the effects of this disordered state are pretty well known. We learn from experience and observation all that we can know, and we see that madness may subsist in various degrees, sometimes slight, as partaking rather of disposition or humour, which will not incapacitate a man from managing his own affairs, or making a valid contract. It must be something more than this, something which, if there be any test, is held, by the common judgment of mankind, to affect his general fitness to be trusted with the management of himself and his own concerns. The degree of proof must be still stronger, when a person brings a suit on allegation of his own incapacity, by exposing to view the changes of his mind. This gentleman's father has been produced as a witness, that he had given him leave to go to a show of cattle, in order to amuse him; that he (the plaintiff) took that opportunity of eloping to town without money and without preparation; that he told his friend he was going into the neighbourhood of Nottingham, and should return, but he did not; he went to Newark, and on to London, without any other purpose than that of indulging the mi-

litary notions, which he usually entertained in his fits of insanity. He is described, by one of the passengers in the same carriage, to have been giddy and flighty, very communicative about his family, as persons of property, but frequently contradicting himself; speaking to every person whom he met, and particularly to women, and calling to any person that he saw at the window. This witness deposes, that at first he supposed him only to be wild and thoughtless, but afterwards he considered him to be deranged. This is a description of very extravagant behaviour. On his coming to town, on the 9th of September, he met this lady for the first time, as it is admitted by Mrs. Turner in her answers, who was then Sarah Meyers, but passing by the name of Mrs. Lee. He first became acquainted with this woman, by accidentally meeting her in the street, somewhere near one of the Theatres Royal. Her servant, Susannah Squire, says, 'that on Friday the 9th of September, he came with her mistress, who lived in Ann-street East, and that almost immediately she heard him say to her mistress, 'he could not live without her.' That her mistress then proposed 'that she should go to church with them,' and on the Monday following, Mr. Turner obtained a licence, and on Wednesday they were married.' Here is an offer of marriage at once to a perfect stranger. One has heard of the extravagant effects of love at first sight. This is conduct which, if it stood alone, might be only an act of a very weak person, and might not be sufficient to proclaim a man absolutely mad or lunatic; it is, certainly, however, symptomatic; and if fortified by other acts, may lead to a different conclusion. It is alleged, on the part of Mrs. Turner, 'that she was the cause of this inclination, on his discovering that she was particularly fond of the military profession, from seeing the locket of a military officer in her possession; and that he affected their habits from a wish to recommend himself to her.' But this could not have been the cause of them, since they appeared in his first conversation with Parry, before he had seen her, and with his fellow-traveller on the road. Mr. Parry, junior, says, that the next day a young woman came to inquire about his character, with a card of reference of a description very wild:—'Royal Army of France, Captain Jonathan Turner, of the Royal Guards.'

Oakley, the sister of the woman, says, 'that on the Monday he was very desirous to marry her sister; that he went for the licence, and was married; and that, during the ceremony, there was perfect propriety of behaviour; and that he was perfectly rational, and that it was his own free act.' The Clergyman and the Clerk also depose to the propriety of his behaviour. Much

stress, however, is not to be laid on that circumstance; as persons, in that state, will nevertheless often pursue a favourite purpose with the composure and regularity of apparently sound minds. It is in the *extraneousness of the act itself*, rather than in the manner of pursuing it, that the proof of madness is to be discovered."—1 Huggard, 414, &c.

To this I should add a case of a proceeding under a commission of lunacy to set aside a marriage.

"*The Countess of Portsmouth, v. the Earl of Portsmouth, by his Committee.*—This was a suit of nullity of marriage, instituted, originally, in the Consistory Court of London, on the part of the Earl of Portsmouth, acting by his Committee; and in an early stage of the proceedings, came up, by appeal, to the Court of Arches, where it was retained. The cause was argued by Lushington and Pickard for the Earl of Portsmouth; and by the King's Advocate and Dodson contra.—SIR JOHN NICHOLL: This suit is described as brought by the Earl of Portsmouth, acting by his Committee, against Mary Ann Hanson, falsely calling herself Countess of Portsmouth, to have a marriage, in fact solemnized between them, declared to be null and void in law. The proceedings originated in the following circumstances. In January 1823, a Commission issued to inquire into the alleged lunacy of Lord Portsmouth: the inquiry was executed, very long proceedings took place, the matter was strenuously contested, a great number of witnesses were examined, and the finding of the jury was, 'that Lord Portsmouth is of unsound mind, so that he is not sufficient for the government of himself and his property, and has been in the same state of unsound mind from the first of January, 1809.' In consequence of this finding, Mr. Henry Fellowes, a distant relation, was appointed Committee; and by an order made in the Court of Chancery, the Committee was directed to institute proceedings in the Ecclesiastical Court 'for the purpose of annulling and declaring void the marriage of John Charles Earl of Portsmouth with Miss Mary Ann Hanson, now Countess of Portsmouth.' Thus the proceedings commenced in the Ecclesiastical Court. The verdict would not of itself affect the validity of the marriage, *de facto* solemnized, though solemnized within the time of the finding by the jury. The finding is a circumstance and a part of the evidence in support of the unsoundness of mind at the time of the marriage, but no more; for this Court must be satisfied by evidence of its own that grounds of nullity existed. The law of the case admits of no controversy, and none has been attempted to be raised upon it. When a fact of marriage has been regularly solemnized, the presumption

is in its favour; but then it must be solemnized between parties competent to contract—capable of entering into that most important engagement, the very essence of which is consent: and without soundness of mind there can be no legal consent—none binding in law: insanity vitiates all acts. Nor am I prepared to doubt, but that considerable weakness of mind, circumvented by proportionate fraud, will vitiate the fact of marriage—whether the fraud is practised on his ward by a party who stands in the relation of Guardian, as in the case of Harford against Morris, which was decided principally on the ground of fraud—or whether it is effected by a Trustee procuring the solemnization of the marriage of his own daughter with a person of very weak mind, over, whom he has acquired a great ascendancy. A person, incapable from weakness of detecting the fraud, and of resisting the ascendancy practised in obtaining his consent to the contract, can hardly be considered as binding himself in point of law by such an act. At all events, the circumstances preceding and attending the marriage itself may materially tend to show the contracting party was of unsound mind, and was so considered and treated by the parties engaged in fraudulently effecting the marriage. In respect to Lord Portsmouth's unsoundness of mind, the case set up is of a mixed nature—not absolute idiocy, but weakness of understanding—not continued insanity, but delusions and irrationality on particular subjects. Absolute idiocy, or constant insanity, would have carried with them their own security and protection; for in either case, the forms preceding, and the ceremony itself, could not have been gone through without exposure and detection—but here a mixture of both, by no means uncommon, is set up—considerable natural weakness, growing at length, from being left to itself and uncontrolled, into practices so irrational and unnatural as in some instances to be bordering upon idiocy, and in others to be attended with actual delusion—a perversion of mind—a deranged imagination—a fancy and belief of the existence of things which no rational being, no person possessed of the powers of reason and judgment, could possibly believe to exist. His servants were his playfellows in town and country; he played all sorts of tricks with them; more particularly in the country, where he was less under observation—where he found additional playmates in his farm-servants and labourers, and where he was less liable to notice. He was fond of driving a team, and Lady Portsmouth so far indulged him as to have a team of horses kept for his amusement as a toy and a plaything, with which he carted dung and timber and hay; yet he used to flog these horses most unmercifully, and often in

such a manner as to produce danger to his own person. As further proof of his unsoundness of mind may be added his propensity for bell-ringing, not as sometimes young men will do for exercise, but to share the money; this, too, by a nobleman of forty, at his own parish church, and near his own residence: his fancy respecting funerals, and his conduct and all the circumstances connected with that fancy: the slaughtering of cattle, and the incidents attending that whim. Another trait is, his pleasure in malicious cruelty to man and beast; never expressing any regret—but 'serves him right,' was his usual remark upon his own acts of cruelty. I allude only to these facts very generally; but to state them with the force and effect they have upon my judgment would require a detail of the minutest circumstances connected with each of them. A still more decided delusion of mind is that relating to lancets, and tapes, and basins in women's pockets; the particulars of which, for the same, and even for additional reasons, I do not enumerate. The fact is proved beyond all question; it was a delusion that continued even to the time of the inquisition. Dr. Ainslie admits that 'such a propensity is not consistent with a perfectly sound mind.' What the distinction is between a mind not perfectly sound, and an unsound mind, is not explained by the witness; nor what is the state of the capacity of a man who, when between forty and fifty, twice married, and living in society, supposes that the gestation of a woman could be fifteen months; nor of one who admits that he knew another man was in bed with his wife—that he remonstrated, but 'they never took any notice of me,'—and who does not resent this, nor take any steps for relief, because the man was 'too strong' for him;—these and other circumstances, admitted on the interrogatories by this witness, occasion his evidence to produce no alteration in my opinion, respecting the bearing of the facts before the marriage spoken to by the other witnesses; and the evidence of Swait, the bailiff, who is brought forward to contradict the facts, and to prove the correctness and propriety of Lord Portsmouth's conduct, is equally nugatory; for this witness, on the interrogatories, admits—'That he did sometimes control the noble Earl; that 'when he was running a little contrary, he threatened to tell Dr. Garnet of him.'—'Respondent has sometimes wrested a whip out of Lord Portsmouth's hand, when my Lord, in playing, has cut him across the legs.' What a picture is this of the noble Earl, from a witness produced to prove his capacity and soundness of mind! A nobleman of forty, flogging an old bailiff of sixty for his amusement, and in play cutting him across the legs!—the bailiff not submitting nor quitting his service, but by force wresting the whip

out of his hands! and the nobleman in his turn submitting to this indignity and forcible control!'—1 *Hagg. 2d Ser.* 355, &c.

The most perplexing cases with respect to the question of the kind of insanity which will avoid civil contracts, is where there is partial insanity and delusion upon some particular subjects; and where the delusion is not so immediately connected with the act which is sought to be invalidated as, if it were a criminal act, would render the doer of the act irresponsible from punishment. I shall read you a case.

Dew v. Clark and Clark. Judgment: SIR JOHN NICHOLL.—'The question in this case respects the validity of the will of Ely Stott. He died, on the 18th November, 1821, at the age of 72 years. He left behind him a widow, and an only daughter by a former wife. He had several nephews and nieces, but of course none of them were entitled in distribution. His property amounted to near 40,000*l.* In the month of February 1821, the wife applied for a commission of lunacy against the deceased, which was granted and executed, and the deceased was found of unsound mind from the preceding 1st of January. The will propounded bears date in the month of May 1818—three years before the finding under the inquisition. The disposition (according to the document) is very much to the prejudice of the daughter, who, out of this large property, has merely an annuity for life of about 100*l.* But this will was fully and formally drawn up, was regularly executed, and attested by three respectable witnesses. Soon after the death of Mr. Stott, all the executors having renounced probate, administration, with the will annexed, was taken by the residuary legatees—Thomas and Valentine Clark. Not long after, viz. in the month of April 1822, the administration was called in by the daughter and only child. The will was propounded by the residuary legatees, and opposed by Mrs. Dew, the daughter. The first allegation given for the executors pleaded merely the *factum* of the will, and the death, character, and handwriting of one of the attesting witnesses. In support of this allegation the two surviving witnesses were examined, and the *factum* was proved. In particular, Mr. Bramley, the solicitor who prepared the will, proves instructions from the deceased himself; several interviews with him; the different stages of the preparation; and finally the regular execution. Both witnesses, Bramley and Hammond, speak to their conviction and belief that the deceased was of perfectly sound mind when he made this will. If the case rested upon the evidence of the *factum*, as proved by the witnesses on the *conditio*, there could be no doubt nor question upon the case. The ground on which the will is opposed, is not

a denial of the instructions and execution; is not a suggestion of any fraud or circumvention, nor of any extrinsic influence: it is not alleged, that the will did not originate with himself, was not prepared and completed by his direction, nor that the attesting witnesses have misrepresented the facts, nor that they have not given an honest opinion of the state of the deceased; but the ground is, that though the will is the mind of the deceased, yet that it was not a sound but an unsound mind—unsound in the legal acceptance of the epithet—“deranged and insane.” The clear rule of law is, that the burthen of proof in such a cause lies on the party setting up insanity.....As far as my own observation and experience can direct me, aided by opinions and statements I have heard expressed in society, guided also by what has occurred in these and in other courts of justice, or has been laid down by medical and legal writers; the true criterion is—where there is delusion of mind there is insanity; that is, when persons believe things to exist, which exist only, or, at least, in that degree exist only, in their own imagination, and of the non-existence of which neither argument nor proof can convince them, they are of unsound mind; or, as one of the counsel accurately expressed it, ‘it is only the belief of facts, which no rational person would have believed, that is insane delusion.’ This delusion may sometimes exist on one or two particular subjects, though, generally, there are other concomitant circumstances—such as eccentricity, irritability, violence, suspicion, exaggeration, inconsistency, and other marks and symptoms which may tend to confirm the existence of delusion, and to establish its insane character.....The law, then, does recognise partial insanity in the sense already stated; and, in civil cases, this partial insanity—if existing at the time the act is done; if there be no clear lucid interval—invalidates the act, though not directly connected with the act itself; but, in criminal acts, it does not excuse from responsibility, unless the insanity is proved to be the very cause of the act. The rule, as I apprehend, was correctly laid down in *Hatfield’s case*:—‘There is a wide distinction between civil and criminal cases. If, in the former, a man appears upon the evidence to be *non compos mentis*, the law avoids his act, though it cannot be traced or connected with the morbid imagination which constitutes his disease, and which may be extremely partial in its influence upon conduct; but to deliver a man from responsibility for crimes, above all for crimes of great atrocity and wickedness, I am by no means prepared to apply this rule, however well established when property only is concerned.’.....There is a large mass of evidence introduced properly, and certainly of considerable weight,

but which does not require to be stated, nor examined in detail; namely, evidence to show that the deceased, in the ordinary transactions of life, conducted himself and his affairs rationally; was a sensible and clever man; amassed a considerable fortune by his profession; took good care of his property; and that several of his friends and acquaintance, some of them medical persons, never considered, or even suspected, that he was deranged in his mind. All this is fully established, and it strengthens the presumption of sanity, and requires that the proof of derangement should be very forcible and stringent; but it is not conclusive, nor is it even conflicting evidence. All this may be true, and yet delusion on particular subjects, and showing itself on particular occasions, might exist. It is, therefore, not necessary to discuss this part of the evidence with the same minuteness which might be required, in order to compare it with conflicting evidence, yet the parties, supporting the will, are entitled to the benefit of it, and shall have its full force, in my decision.....The main delusions, certainly, are those respecting his daughter and respecting himself;—so that though his daughter, from her earliest infancy to the end of her history in this cause, is proved to be amiable in disposition, of superior natural talents, engaging in her manners, diligent, industrious, submissive and obedient, patient under affliction, dutiful and affectionate, modest and virtuous, moral and religious, yet, in the deluded mind of the deceased, she is the most extraordinary instance of depravity, of villainess, of vice, of crime, of profligacy, of hypocrisy, of artifice, of disobedience, of revolt, and rebellion against paternal authority, and is quite irreclaimable;—while, in regard to himself, he is a pattern of fatherly tenderness and affection, thoughttying his daughter to a bed-post, and flogging her with the most unmerciful severity, and aggravating her sufferings by the application of brine; flogging her repeatedly with a horsewhip; pulling her hair out by the roots; compelling her to perform the most menial drudgery, and of the severest sort—to which even a servant would not submit. All these things are represented by himself as proofs of his great tenderness and regard. These impressions accompany him through life, and are recorded in this will. To remove these delusions, no reasoning, no argument, no interposition of friends, no pastoral authority, is of any avail; even the sanctions of religion cannot convince him that his ideas are erroneous, nor induce him to alter his conduct: he held himself perfect and faultless,—‘pure as the Deity.’ What might be the condition of the deceased as applied to other transactions, civil or criminal, it is not my duty to consider.”—(*Haggard’s Report.*)

I will contrast with this another case, where the bond executed by a person who appeared to be evidently deranged upon some subjects, was upheld as valid and effectual. Perhaps the distinction may be that no delusion was proved to be operating on the party's mind at the time of the action in question. The case to which I allude occurred at Nisi Prius in the King's Bench, 1809. It was an action on an annuity-bond brought by a Miss Faulder against the executors and heir of Thomas Clerk Jervoise: the defence, lunacy of the obligor. The young lady had been the mistress of Mr. Jervoise from the age of eighteen, cohabiting with him for twelve years, and conducting herself throughout with singular propriety, and paying every possible attention to his welfare. When he executed the bond in her favour, he did it with peculiar caution, and the preparers of the instruments and the attesting witnesses bore strong testimony to his competency for the act. The bond bore date 1808. The following facts were adduced in evidence by the defendants. The lunatic, on the death of his grandmother in the year 1804, became possessed of an estate in Hampshire, whither he immediately repaired, and whilst the corpse was yet unburied, pulled down the chimneys and levelled the walls of the mansion, himself living in a marquee, sleeping in a stable or a summer-house, and cooking his victuals with his own hands under a tree in a favourite vessel, which he called his *conjurer*. The carriage of his grandmother was painted black, by his directions, and exposed for sale under the name of Black Jack. Upon the death of his father, he came into the possession of the family estate and residence, situated at West Bromwich, in Staffordshire, whither he repaired, and made a bonfire of all the furniture, himself superintending the conflagration. It was his practice to ride about the country on a jackass, dressed in a white hat, blue trowsers, red morocco slippers, with a flannel shirt next his skin, and over that a white linen shirt, without either coat or waistcoat, wearing sometimes a waggoner's frock. His usual places of residence were tents, stable-yards, or coach-houses, where he cooked his victuals, and even shaved himself, in his beloved *conjurer*, occasionally sleeping on the boards of a parlour, or the stones of a hall. Much of his time was spent in travelling—his carriage being always filled with pots, pans, silver plates, old china, a bunch of large keys, picklocks to the number of one hundred and fifty, and his inseparable *conjurer*. A carriage which he once made use of was unpainted, until a sudden freak induced him to order three female domestics to paint it on a Sunday, and then he rode out in it, the paint being wet. Fishwomen were frequently

called to him as they were passing by, whose fish he purchased, and when he employed in mending the lining of his carriages with the petticoats of his maid-servants. His female domestics, particularly a woman of the name of Elizabeth Savage, whom he picked up at Birmingham, were the companions of his journeys; and he would frequently stop at night on the high roads, making tea and cooking his victuals; on one occasion he performed the process of cooking at midnight on Bagshot Heath, with numerous candles burning round him, to the no small surprise and entertainment of travellers. Staircases became the objects of his aversion, for he thought them unsightly things; and caused the staircase of his house at Egham to be taken down, substituting a ladder in its stead; passages were moreover cut through the ceilings, through which his servants were sometimes obliged to raise themselves into their chambers by ropes and pulleys; himself occasionally sleeping on the boards of the ground-floor. To his own chamber (when he made use of one) he clambered by means of a chest of drawers filled with large nails drawn out progressively like steps, from the top of which he ascended by ropes. In one of his houses a staircase turning on castors was erected, to serve as a crane, for the purpose of raising his carriage into his chamber windows. Windows were frequently converted into doors, and the doors blocked up. At length he conceived an aversion to the presence of servants; and, to obviate their attendance, caused the door leading to his chamber from below to be cut in two, so as to form a bar, over which his domestics were never allowed to pass; but they placed his victuals on a table in the inside, connected by a rope and pulleys with that on which he was sitting, and thus were his victuals conveyed to him.

The Rev. Holwell Car deposed, that he visited Mr. Jervoise about the time of his granting the annuity, and thought him at that time incompetent to a legal disposition of his property. He was confined in a mad-house on the 2d of January, 1809, where he continued to the day of his death. Lord Ellenborough observed to the jury, that although the inquisition which found Mr. Jervoise a lunatic during the period when the instruments in question were executed, was evidence of his insanity, yet that such evidence was presumptive only, not conclusive; and if they should be of opinion, that when he granted the annuity he had such possession of his intellects as rendered him perfectly aware what he was doing, and in making such a disposition of his property had followed the dictates of his mind when fully possessed of reason, their verdict should be in favour of the annuity; provided, on the contrary, they believed him to have been,

during the whole period covered by the inquiry, in a state of decided insanity without any lucid interval, the defendants were entitled to a verdict.—Verdict for plaintiff.”—*Law Magazine*, No. VII.

Another question with regard to insanity very often occurs, in considering the validity of wills and testaments;—I mean the subject of “lucid intervals.” The principal judicial authority upon the subject of lucid intervals is the judgment of Sir W. Wynne.

“If you can establish that the party afflicted habitually by a malady of the mind has intermissions, and if there was an intermission of the disorder at the time of the act, that being proved is sufficient, and the general habitual insanity will not affect it; but the effect of it is this—it inverts the order of proof and of presumption, for, until proof of habitual insanity is made, the presumption is that the party agent, like all human creatures, was rational; but where an habitual insanity in the mind of the person who does the act is established, there the party who would take advantage of the fact of an interval of reason must prove it. That is the law; so that in all these cases the question is whether, admitting habitual insanity, there was a lucid interval or not to do the act. Now I think the strongest and best proof that can arise as to a lucid interval, is that which arises from the act itself; that I look upon as the thing to be first examined, and if it can be proved and established that it is a rational act rationally done, the whole case is proved. What can you do more to establish the act? Because, suppose you are able to shew that the party did that which appears to be a rational act, and it is his own act entirely, nothing is left to presumption in order to prove a lucid interval. Here is a rational act rationally done. In my apprehension, where you are able completely to establish that, the law does not require you to go further, and the citation from Swinburne does state it to be so. Unquestionably there must be a complete and absolute proof that the party who had so formed it did it without any assistance. If the fact be so, that he has done as rational an act as can be, without any assistance from another person, what there is more to be proved I don’t know, unless the gentlemen could prove, by any authority or law, what the length of the lucid interval is to be—whether an hour, a day, or a month. I know no such law as that; all that is wanting is that it should be of sufficient length to do the rational act intended. I look upon it if you are able to establish the fact that the act done is perfectly proper, and that the party who is alleged to have done it was free from the disorder at the time, that is completely sufficient.”—1 *Phillimore*, 100.

Lord Thurlow has observed, that the evi-

dence in support of the allegation of a lucid interval, after proof of derangement at any particular period, should be as strong and as demonstrative of such a fact as where the object of the proof is to establish derangement. Perhaps it would be more just to observe, that if, on the one side, derangement has been clearly proved, a lucid interval must also be clearly and satisfactorily proved on the other side. But there appears to be no reason for requiring, in the proof of each of these several facts, precisely the same measure of evidence or the same degree of demonstration. It is possible that both facts may be most satisfactorily established, though the proof in the one case may, perhaps, not be so strong or so demonstrative as in the other. The proof of insanity is frequently obvious, and often easy; but the existence of a lucid interval—the question of restoration to light and reason, is generally one of the greatest difficulty.

Neither can it be necessary to shew, that the patient has been restored to as perfect a state of mind as that which he had before his derangement; because, as Lord Eldon has observed, the strongest mind may be reduced by the delirium of a fever, or some other cause, to a very inferior degree of capacity;—a great intellect may lose half its powers, and still retain more reason than falls to the lot of the common order of minds, and all that the law requires is a disposing mind, capable of doing an act of thought and judgment.

Still, perhaps, there is a more important difference than Sir W. Wynne is willing to allow, between a reasonable act and an interval, which is a state, the duration of which should, perhaps, be sufficiently long to admit of a judgment of its reality. It is observed in the pleadings of the great French lawyer, D’Aguesseau, that an act of reason may subsist with a habit of madness. He says, a lucid interval must not be a superficial tranquillity, a shadow of repose; but, on the contrary, a profound tranquillity, a real repose. It must not be a mere ray of reason, which only makes its absence more apparent, when it is gone;—not a flash of lightning, which pierces through the darkness, only to render it more gloomy and dismal;—but a perfect light, a lively and continued lustre, a full and entire day, interposed between the two separate nights of the fury which precede and follow. It must not be a diminution of the complaint, but a kind of temporary cure;—an intermission so clearly marked, as in every respect to resemble the restoration of health. Not only must the individual act be in itself rational, but the agent must be shewn not to labour under delusion on any other point whatever.

These views of D’Aguesseau, founded on the doctrines of the civil law, are consonant

to the views of many eminent medical authorities. This part of the subject I will leave to my colleague, citing only a short passage on the subject from the writings of Dr. Willis:—

"Many imagine that when a patient can converse quietly and rationally upon general subjects, he is a sane man; hence, this state is sometimes denominated a 'lucid interval.' No man, however, can be considered sane, until he freely and voluntarily confesses his delusions. Every physician, acquainted with the disorder, knows that a patient may be capable of conversing correctly upon many subjects, and even of restraining himself for a time from alluding to that upon which his delusion turns; if, however, this particular subject be accidentally brought to his attention, he will give evident proofs of his derangement. This state is not, therefore, properly an interval of sanity; for, though we see the patient capable of being clear and lucid on many subjects, still finding him at the same time lost and bewildered on one, he cannot, with any propriety, be deemed in his senses, or of sound mind. This fact, moreover, explains why the experienced physician will never certify to the sanity of any individual, without having frequently examined him in new situations, and under different circumstances; while the inexperienced, through his ignorance of the complaint, often does it, in confirmed cases of madness, because the patient is capable of saying the Lord's prayer, repeating the multiplication table, or playing a game of whist."—*On Mental Derangement*, p. 151.

I have dwelt longer upon the nature of lucid intervals, because I do not find that the judicial authorities are quite agreed upon the subject; and I conceive that in whatever future legal investigations may arise, concerning "a lucid interval," the opinions of the medical world will have great weight in fixing the common law of the country.

Swinburne mentions a case in which a man being in *extremis*, an abbot asked him if he would leave such a manor to his abbey? "Yes."—Then such a house; such a field? "Yes, yes."—Upon which, the heir at law being out of patience, said, "Is not this a very rogue and knave?" To which the testator answered, "Yes, yes."

This suggests to me a question of very deep importance, which is now before the Court of Delegates, and upon which the common lawyers and civilians are greatly at variance. The question is, whether influence and importunity, short of violence or menace, when it is proved to have been exerted in order to procure a will in favour of a particular person, will avoid the will. The case is that of *Ingram v. Wyatt*. But I have not time to enter into it; I must refer you for the particulars to 1 *Haggard*, 2d Ser. 400, 450.

I shall conclude my lecture with mentioning some of the facts in a case in which I was myself engaged, and in which a jury set aside a will upon the ground of influence. Of course the state of health of the party at the time the alleged influence is exerted is a very important inquiry; and accordingly in this case several medical witnesses were examined.

Doe on the demise of Eley v. Gould and others. Thomas Eley was a young man, just come of age. He possessed property—was at variance with his family—and bequeathed all he was worth to one Mosley, a lace-manufacturer, to whom he was apprenticed. The testator removed to Mosley's house on Thursday 29th May, 1823, and made his will on the Saturday (31st); he was then in a declining state of health, and died on the Wednesday following. I shall select some part of the evidence.

John Bowman examined.—I was at Mosley's house before Eley died; used to attend him and give him his medicine; he took medicine several times; had every thing he wanted; I was not directed to deny him any thing; never heard any complaint from Eley that he was under restraint; very great friendship; can't think he had any fears of Mosley; was an apprentice there; was at Mrs. Bainbridge's; saw her during that time occasionally at dinner; came about ten days before Eley's death; he was on the first floor; Mosley occupied the room above; was in a very pleasant room; after Eley came he slept in the first bed, I and Colton in the other—the third was empty; Mosley's treatment to him was like that of a father to a son; he neglected work a little in order to attend to him; sat up part of the time; Eley was subject to violent perspiration; ordered his shirt to be shifted; had linen several times a day.

Cross-examined.—Slept every night he was there; when he came he looked very ill; very weak in body, not in mind; not rambling, not till the latter part of his life; he might be, a couple of nights before his death; he asked for rum and water; I gave him half a glass; Mrs. Mosley gave me the rum and water. One night he told me to fetch a man out of the cupboard; don't know whether it was the night before, or the night but one before his death; he sang 'God save the king,' and made many noises; not sober when he died; did not see any thing given him; gave him some rum and water seven or eight hours before his death; in my opinion he died in intoxication; I did not know about either will; Mosley would not have him disturbed, and therefore would not let Spencer see him; I read the Bible; Eley did not wish to hear me read it.

Elisabeth Bainbridge examined.—I

knew Thomas Eley; he came to lodge with me on Shrove Tuesday, six years ago; he objected to lodging at Mosley's; had a flock-bed, and was among the apprentices; when he first came he was in tolerably good health, but went a journey with Mosley and caught cold; never recovered from that cold; Mr. Higginbotham attended him at my house; he might have attended him nine or ten times; remember Eley's going to Mosley, Thursday May 29th; Mr. H. saw him about half an hour before he left; I was there when Mr. H. came; Eley was up stairs in bed when H. saw him, about a quarter past twelve; Mosley talked a little with H.; Mr. H. came down stairs; I asked what he thought of Eley; he said, impossible to get better; went up stairs to Eley—asked him if H. said anything particular to him; he said Mr. H. had told him he might go on with the same medicines; I said he is flattering you; Mr. H. has told me you are not likely to recover; he seemed to hesitate; I said, there is something to do of great importance—first, to prepare for another world, and next, to fix your property on your brother and sister; he said that with regard to his property he had done nothing—he did not think he should; the property came to him by heirship, and should go by heirship; he said as long as he kept his hands from pen and ink, nothing would be amiss on any side. After I came down, the servant-maid of Mr. Mosley assisted him to get up; he came down about one o'clock; before he went out he said, 'Mrs. B. I am going to dine at Mr. Mosley's; I shall probably come in to tea. Get the sofa and put it in a corner; that will do nicely—better than up stairs.' He told me he should give directions for his brother and sister to be sent for, to assist me in doing for him at nights; went away; a person came from Mosley's about five o'clock for his night-clothes and a couple of lemons; I thought it very strange Mr. Eley did not come back, for Mr. Mosley had promised that if not able to walk he should come back in a chair; went to Mosley's on Friday for the purpose of seeing Eley; Mosley refused me seeing him, saying he had desired he should not be disturbed; told Mosley what Eley had said about sending for his brother and sister; he said he had written for them; they were expected every day; wrote for them to come that morning. Went the following day; still refused; called on Sunday; not permitted to see him; I did not stay long. I was going to church; called on Monday; saw Mosley on Monday afternoon; told me he should not admit me; I could not see him; I asked how he was; told me he was getting better—rallying very fast, and coming down to his tea; said Mr. Eley should come again to me when he was better; urged Mosley to let me see him; my heart misgave me; had a great deal to do to get

to see him; Mosley and his wife were below; went up stairs along with them; on returning the second time I first saw Mrs. Mosley; told her I was resolved to see him; I said, I shall suppose you are doing something to him you ought not; then went up stairs along with Mr. and Mrs. Mosley; when I got into the room, astonished to see how Eley lay; he was in bed; his eyes were glazed; he was in a dying state; appeared to want to speak with me; I was shocked, and Mrs. Mosley took me into the parlour; she said, why so pressing? wished to settle while Eley was alive; Mosley said, make the account out, and be it what it would he would pay; asked Mosley about his brother and sister; Mosley said he was surprised they did not come; daily and hourly expected; in a poor state when he left my house; was getting worse by degrees; had lodged from Shrove Tuesday to the 29th May; understanding and memory far from perfect—not as perfect as when I first came. Before the 29th May had conversation about his property; he said when he had got possession he should build; I heard him say, as soon as he could form a fresh connexion he should leave; heard him say, Mr. Mosley frequently wished to cut off the entail, but had not done it yet; said Mosley was frequently teasing him.

Mr. Higginbotham examined.—I was called in by Mosley's directions; saw Eley on 9th May, 1823, with Mosley; saw him on horseback; Dr. Hall prescribed for him; visited him first at Mrs. Bainbridge's; visited him seven or eight times—several times at Mrs. Bainbridge's, and after he left Mrs. Bainbridge's can speak to one visit at Mosley's; his disease was pulmonary consumption; he died in an *early stage* of it; had fever at Mosley's; recollect Mrs. Bainbridge; have some impression as to a conversation with Mosley; don't think there was much difference in the situation between Mrs. B.'s house and Mosley's; Mosley's was warmer—this was better for pulmonary complaints; his room at Mosley's south south west, at Mrs. Bainbridge's it was north east; aspect much better; the weather was warm. I have no recollection of fever, excepting the day before he died, when he had much heat; Dr. Hall is living in London; did not particularly notice Eley's intellects; there was nothing that shewed him incapable of managing his affairs, except at a short time before his death; I did not see that he was under any restraint; no recollection that Mosley was always by when I visited him; this is the book that contained his prescriptions.

Cross-examined.—Had fever at Mosley's; suppose he must have had it also at Mrs. Bainbridge's; one day I saw him very flushed; last, or last but one, flushed and comatose; might arise from the disease so

near death; did not know of his taking spirits at that period of the disease; immaterial what he took; he might take what he liked; never visited him before the 27th; medicine sent before occasionally; suppose I attended on the 27th because he was worse; no recollection of desiring Mrs. Bainbridge should not see him; no reason why she should not see him; don't recollect seeing Mrs. Bainbridge after he removed on the 29th; don't recollect saying that he was in a dying state; do not recollect that he was in a dying state before his removal; very likely; no prospect of recovery when I first visited; he died in an early state of the disease.

Dr. Manson examined.—I am a physician; attended in many pulmonary complaints; a patient in that complaint retains his faculties more than in most complaints; they generally lose their faculties a few hours, a day, or two, or three, before death; if he had been in a high state of delirium should have applied remedies to the head; I should suppose from the prescriptions that the patient had a low state of fever*.

John Attenburrow.—When delirium occurs in consumption, it is generally in *articulo mortis*, and seldom, or perhaps never, occurs while the patient can stand."

The report of the medical evidence in this case is very imperfect, but it is sufficient to show you what are the kind of questions asked of a medical witness, in a legal inquiry of the nature I have described.

With respect to certificates for the confinement of mad persons, I may just add, that, from the recent case of *Anderdon v. Burrows, M. D. &c.* it appears that a medical man is not warranted, merely on statements made by the relations of a person supposed to be insane, in sending men to take him into custody and confine him, unless he is satisfied, from those statements, that such a step is necessary, to prevent some immediate injury from being done by the individual, either to himself or to other persons; and if access cannot be had for the purpose of examination, application should be made to the Lord Chancellor, that the party may be taken up under his authority.—4 *Carrington and Payne*, 210.

I beg leave to announce, gentlemen, that the present course will conclude with the next lecture. The subject will be *Homicide*—a subject on which, I may mention, that I have in my possession a variety of interesting cases which have never been published.

* From the MS. trial in Mr. Amor's possession.

ON THE RECURRENCE OF EXANTHEMATOUS FEVERS.

By GEORGE GREGORY, M.D.
Physician to the Small-Pox Hospital, &c.

[As the substance of the following observations was contained in the paper, by Dr. Gregory, which was read at the last evening meeting of the College of Physicians, we have deemed it unnecessary to give the analysis promised in a former number.]

Immunity from second attacks of the same malady is a principle in pathology not less interesting to the world in general, than to the speculative investigator of disease. The object of the present essay is to examine the modifications of which this important principle is susceptible, and, in an especial manner, to determine, as far as possible, the laws which govern the recurrence of the principal exanthemata.

The diseases to which mankind have, by common consent, attributed the power of conferring immunity from second attacks, are only three in number—small-pox, measles, and hooping-cough; and there can be no question, that such a power belongs to these diseases; that it constitutes a most important feature in their history; and that, by virtue of it, those disorders are, in a degree, isolated from the rest of the maladies to which mankind is subject. It is, however, only in a degree that they are so isolated. The same property belongs to one other disease at least, in as great perfection as to small-pox itself,—I mean yellow fever; and it is claimed for, and probably possessed by, several others, though in a minor degree. The power of conferring immunity from second attacks, which the yellow fever possesses, is acknowledged by those who yet differ widely on the origin and pathological affinities of the disease. This immunity seems to suffer little or no decay from the lapse of years, or the change of climate; and, as a law of the animal economy, appears liable to very few exceptions.

A similar privilege has been claimed for the scarlet fever; but it is very doubtful whether it operates here in

any marked degree;—in any degree, that is to say, sufficient to separate it from other acutedisorders, and to ally it to the four already mentioned, which we may designate as *non-recurrent*. Every acute disease, without exception, affords a certain quantum of immunity from second attacks. A man recently recovered from a typhus fever may remain in the wards of a fever hospital, or return to the place where the disease originated, with a reasonable security against recurrence. I of course presuppose, that a proper distinction is drawn between the conditions of recurrence and relapse, a matter of the utmost consequence in the inquiry now before us.

So, in like manner, a family, resident in the Lincolnshire fens, after passing through the endemic remittent of that district, may remain there with much greater safety than a family of newcomers. Indeed, were it not for this law, it is obvious that there could be no permanent residents in any unhealthy locality. I do not by this mean to deny the fact of the recurrence of endemic maladies in the same subject. The countenances of the inhabitants of unhealthy districts bear too many proofs of the reality of this occurrence. All that I contend for is, that an individual, who has passed through the disorder, and been *effectually* cured, is not so liable to a *second* attack, as a new-comer is to a *first*. The constitution, by having once gone through the disease, has acquired at least a temporary security from a second visit. The very fact of convalescence in the air which engendered the malady is, of itself, a sufficient guarantee of the correctness of this doctrine.

The true Turkish plague is subject to a similar law of temporary immunity. Dr. Russell, in his full and perspicuous account of this disease, informs us, that instances of re-infection during the same season are very infrequent. Some authors, especially Orriæus, who describes the epidemic of Moscow in 1770, contends that such an event has occurred; but popular opinion all over the Levant confirms the notion, that a person once recovered from the plague is secure, at least for a time, from a second attack; and it is not improbable, that the few instances to the contrary, recorded by authors, are really cases of *relapse*; the difference between which and re-infec-

tion, however clear to the understanding, being, according to Dr. Russell, by no means of easy application in practice. Whether this immunity from second attacks continues through life, or when it ceases to operate, are questions more difficult to answer. The following is the result of Dr. Russell's own experience:—"It appears," he says, "from my journals and memoranda, that in 4400 cases of plague, there were only 28 of re-infection, well ascertained,—a proportion much under what I expected, and which may account for some practitioners not having met with them at all." It has recently been shown, that the recurrence of plague is considerably more common than the experience of Dr. Russell would seem to indicate.

It is recorded by Thucydides, in his account of the plague of Athens, that "the convalescents had much compassion on the sick and dying, from having known their misery, and being themselves secure, as the disorder never seized the same person twice, so as to be mortal."

I have not been able to obtain any accurate information relative to the recurrence of cholera, or the period of time for which one attack affords immunity in that disease; but the fact of *temporary* immunity may be assumed as the dictate of common sense.

To return to the subject of scarlet fever. The power of resistance to second attacks, which has been claimed for this disease, does not seem to me to belong to it in any *especial* degree. I have known several instances of persons suffering twice from fever, accompanied with sore throat and scarlet eruption. It must be borne in mind, however, while reasoning on this subject, that it happens to very few persons in their lives to suffer two attacks of typhus fever, or two attacks of acute rheumatism, or indeed of any grave and dangerous malady of the febrile kind. In so far as this general principle extends, scarlet fever may be said to be of *non-recurrence*, but not further.

The power of conferring immunity from second attacks is, no doubt, an important feature in the characters of small-pox, measles, and whooping-cough, but it has long been a subject of doubt with me, whether we are justified in viewing it in any other light than as a well-marked illustration of that princi-

ple of resistance to second attacks which resides in acute diseases generally, but more especially in all regularly-formed fevers. As a distinguishing character of these complaints, it undoubtedly yields to that of *universal susceptibility*. This it is which so eminently separates these three disorders from all others in the nosology. To this law, the exceptions are very few, but it does not fall within my design to investigate this branch of the subject;—I only allude to it now, because I am anxious that the two principles of universal susceptibility and of immunity from second attacks, which have no pathological connexion, should, in this inquiry, be carefully distinguished.

Looking, then, upon the fact—that all mankind, under every variety of climate and circumstance, are, at birth, (with few exceptions,) alike susceptible of them, as the primary and distinguishing character of small-pox, measles, and hooping-cough,—let us inquire, somewhat more in detail, into the laws which govern the *renewed* susceptibility of those disorders.

First, of small-pox. Some persons have attempted to deny the fact of recurrent small-pox, or rather to explain away the circumstance, by calling one of the attacks *chicken-pox*, and by attributing such different laws to these maladies as to constitute them *distinct* diseases. Their attempt, however, has completely failed, for the instances of recurrent small-pox have been much too numerous and too unequivocal to be thus got rid of. In every age and country, cases have been recorded by men of undoubted veracity. The scars of a former attack remained to nullify the speculations of the staunch supporters of *non-recurrence*; and fatal cases, even after extensive pitting, are to be met with, fully attested.

It is unnecessary to dwell longer on the simple fact of recurrent or secondary small-pox. Questions more worthy of inquiry are, first, the comparative frequency of such an event, as compared with the recurrence of other febrile diseases; and secondly, the extent of interval between the two attacks:—in other words, the intensity in which this power of resistance to second attacks may be supposed to exist.

On the first of these points it is difficult to arrive at any accurate conclusions. I may observe, however, that

cases of recurrent small-pox have been very rare at the Small-Pox Hospital during the ten years that I have had the superintendence of that establishment: they have certainly not averaged more than three or four in the year. I cannot, therefore, consider the occurrence as a common one. During the same period, I have seen in private practice a few well-authenticated cases, and have heard of several others, but the event is still, as it *always was*, viewed as a singular deviation from the common course of nature.

With regard to the interval between the two attacks, I have always found it to be very long. I have never seen any but adults suffering under recurrent small-pox; and this, I believe, is the concurrent testimony of the best authors. The severity of the second attack varies greatly; and no anticipation can be formed respecting it, either by the character of the prior attack, or by any other known criterion. In this respect recurrent small-pox differs from small-pox as it occurs subsequent to vaccination; and this may be adduced as one among many reasons tending to prove, that small-pox after vaccination cannot be satisfactorily explained by a reference to recurring or secondary small-pox. The argument, though apparently so conclusive, vanishes indeed under a closer investigation. The great extent to which small-pox prevails after vaccination will then rather be found in contrast with the comparatively few instances of recurrent small-pox. Many hundred cases of the former have been admitted into the Small-Pox Hospital during the period which has afforded not more than twenty or thirty instances of the latter.

Secondly, of measles: Dr. Baillie's well-known paper on recurrent measles has rendered that fact familiar to all; but Burserius had previously collected many instances from unquestionable authority. Morton saw a patient who had measles twice. De Haen describes two similar cases. As far as common observation extends, the recurrence of measles would seem to be more rare than that of small-pox; and from the absence of scars there is more difficulty in ascertaining the fact correctly. Dr. Willan describes a mild disorder, under the title of *rubeola sine catarrho*, which, he says, gives no security whatever against the true measles. Of this mild

disease I have not seen more than two or three cases; but at the Small-Pox Hospital I have had several instances of a *severe* affection, which admits of such a denomination. It is characterized by an eruption truly rubeolous, with purulent expectoration, and a low typhoid form of fever, but without ophthalmia, hoarseness, or coryza. Several of these cases have proved fatal. The disease, I am fully persuaded, is essentially different from rubecula. I have never been able to trace it to the contagion of measles; I have never seen it to spread by contagion; I never witnessed it except in adults. I have usually designated it as *bronchitis rubeolosa*, from a conviction that the leading feature of the complaint is acute bronchial inflammation, upon which a rubeolous eruption supervenes. I am not aware whether the existence of such a disease is generally known. In determining any questions connected with recurrent measles, an acquaintance with this fact must of course be useful.

Very little is as yet ascertained respecting secondary measles, beyond the mere circumstance of its occasional recurrence. In the cases described by Dr. Baillie, the intervals between the attacks were—four months, six months, and twenty-one years. Three cases have recently been recorded, of measles recurring after an interval of fourteen days. I have not heard or read of any similar cases; but the authority on which the statement is made is unquestionable*. It may be doubted, however, whether the term *relapse* does not apply to them rather than recurrence.

Thirdly, of *hooping-cough*: the recurrence of this disorder is a fact mentioned by various authors, but always as a rare event. I have generally found, upon inquiry, that the reputed instances of it were within twelve months of the date of the primary attack. Now, when the usual course and duration of hooping-cough are borne in mind, it will not be unreasonable to consider many, if not the whole of these, as instances merely of *relapse*. The following definition of *relapse* is given by an old French writer:—"The sequel of a malady imperfectly cured, which renews itself at variable intervals, by a remnant of malignity, which neither remedies,

precautions, nor time, have served to destroy."

I come next to investigate the subject of cow-pox, and the laws which regulate its recurrence.

A very large proportion of mankind are susceptible of cow-pox. The instances of insusceptibility which have fallen under my own observation have not probably exceeded a hundred out of many thousands; and it is more than probable, that in many of these, the inaptitude to receive cow-pox arose from temporary causes, and would cease in the course of a few months or years. In some instances it has appeared to depend on general weakness of the frame, and atony of the absorbents. It was associated with atrophy, protracted dentition, and an intellect imperfectly developed. In other cases, however, I have observed it in conjunction with great vigour of mind and body.

Abundant experience has shewn, that after receiving cow-pox effectually, the human body remains insensible to the same poison for a considerable period of time; but what that period is, whether for life, or for larger or smaller portions of life, are questions of importance, deserving rigid investigation: The opinions of Dr. Jenner on the subject of recurrent cow-pox are not, I believe, published. In a letter with which he favoured me in 1821 (a year and a half before his death), he mentions that he had projected a work on an extended basis, in which the question should be fully considered. Whether he ever executed this design I have not been able to ascertain. In the absence of better information, I will state what I have myself observed regarding recurrent cow-pox, premising that the stock of our knowledge on this interesting subject is still small, though somewhat advanced since the period of Dr. Jenner's death. Much still remains to be determined in this department of pathology.

In all the trials which I have hitherto made, I have found it impossible to re-communicate cow-pox, in any degree of perfection, to children under ten years of age, vaccinated carefully in early infancy. It is certainly a singular circumstance, that the earliest period of life at which I have seen small-pox among the vaccinated out-patients at the

* Lancet, No. 390, April 28, 1831, page 104.

Small-Pox Hospital, is *ten years*. A boy (Geo. Cox) has just left the hospital, after passing through a mild but *unmodified* small-pox, who was vaccinated by Mr. Wheeler, the resident surgeon, in 1821. The appearances on the arm are noted in the register as being perfectly regular, which the appearance of the scars would also testify. Several cases of a like kind have occurred during the two last years, but at longer intervals. After the period of puberty, the susceptibility of cow-pox appears to return in a considerable number of persons. The course of the disease is then variously modified, but sometimes no modification of any kind is perceptible. On the 17th October, 1830, I re-vaccinated Miss E. G., twenty-one years after the date of the primary vaccination. The areola formed on the 8th day; the scabs were persistent until the 21st day; and the whole course of the secondary disease was regular. Many similar cases have occurred to myself, and others have been communicated to me by professional friends.

I have undoubtedly met with many instances of *resistance* to second infection, after the lapse even of twenty-five years; but the principle is, I think, clearly made out, that the law of the animal economy, regulating the re-susceptibility of *cow-pox*, is different from that which governs the recurrence of *small-pox*. The general impression, I believe, is, and always has been, that the laws which govern the reception of small-pox and cow-pox are identical. My own observations would lead me to look upon this as an error in pathology. It appears to me, that the immunity from recurrence of its own diseased action is not so complete or so permanent in the case of cow-pox, as it is in the case of small-pox.

It is a reasonable presumption, that wherever the constitution regains the susceptibility of cow-pox, it lies open also to the infection of small-pox. This, I say, is a matter of presumption; it can be determined only by the experiment of inoculating individuals (at variable intervals from the date of vaccination) with cow-pox and small-pox at the same time—an experiment which few persons would volunteer, and which medical men hitherto would hardly have felt justified in recommending.

That the presumption is in favour of such a principle may be inferred from a

circumstance which has recently occurred under my own observation. Two of the out-patients at the Small-Pox Hospital were found to be insusceptible of primary cow-pox. I was exceedingly anxious to ascertain whether this insusceptibility of cow-pox carried with it a like inaptitude to the reception of small-pox. Many similar cases had occurred to me, but these were the first wherein the compliance of the parents enabled me to ascertain the fact. The cases are on that account interesting, and worthy of special notice.

CASE I.—Sarah Kirton, aged ten, residing near Middlesex Hospital, was brought to the Small-Pox Hospital, April 11th, 1831. From the mother (a very sensible, well-informed woman) I learned that the girl was insusceptible of cow-pox. The operation had been performed fourteen times in the course of four years, by a variety of practitioners in town and in country. In every instance imperfect papulae had formed, dying away in a few days. The mother had herself, in early life (at twelve years of age), suffered dreadfully from small-pox. Her face was disfigured by it in a degree rarely if ever witnessed. She was, therefore, more than usually anxious for the safety of her child. I repeated the vaccination for the fifteenth time, but with the usual unsatisfactory results. On the 29th of April I inoculated the girl in six places, with fresh small-pox matter. Elevated spots were perceptible for a few days, but they soon died away.

CASE II.—Charles Mason, six months old, a fine healthy child (not teething), was brought to the Small-Pox Hospital on Monday, March 8, 1831. Three months ago he had been vaccinated by Mr. Sawrey, in Bloomsbury-Square. By the mother's account, the vaccination did not take properly. A small head appeared, which soon died away. I vaccinated the child carefully in six places. On the eighth day the arm presented the appearance of six small acuminated pustules, like those of acne punctata. They speedily died away. On the 9th of May I inoculated this child in the wards of the hospital, with fresh varolous matter, in several places. Seven days afterwards—viz. on the 16th May—the arm presented the appearance of one small scab, surrounded by a slight areola. In a day or two this disappeared.

The legitimate inference from these cases is, that where vaccination, or re-vaccination (duly performed), fails to produce a vesicle, the system is insusceptible of small-pox. But we may go, I think, a step farther, and infer, that where re-vaccination *does* take effect, there the constitution was previously open to the attack of small-pox. In doubtful cases, and cases where a dread of small-pox exists in the mind of an individual, I have often acted on this principle, and advised re-vaccination. The measure possesses this strong recommendation—that it is either perfectly harmless or eminently beneficial.

From the doctrines now laid down, it follows, that the cause of small-pox after cow-pox, must be sought for, not in the mode of performing the operation—not in the quality of the lymph employed—not in any presumed irregularity in the process—not even in the law which governs the recurrence of small-pox; but in that which regulates the renewed susceptibility of its own action. If cow-pox does not, even when most duly taken, give perfect or permanent security against itself, it cannot be expected to do so against small-pox; and that such is the fact in a considerable number of cases, the phenomena of re-vaccination tend very clearly to shew. There can, I think, be no doubt that Dr. Jenner, in the first instance, overlooked this important peculiarity in the character of cow-pox. Observing the close similarity between cow-pox and small-pox in some points (a similarity which, in his opinion, amounted almost to *identity*), he was naturally led to conclude, that as small-pox afforded immunity from recurrence, as complete and permanent as could reasonably be expected, and greater than exists in any other known disease, so would be the immunity afforded by once undergoing cow-pox against a renewal of the same disorder. Assuredly nothing less than a strong conviction that cow-pox gave a *perfect and permanent* security against its own recurrence, would have induced Dr. Jenner to use those remarkable expressions contained in his first Memorial to Parliament:—"Cow-pox renders the person inoculated perfectly secure, through life, from the infection of the small-pox."

To this error in the original notions of Dr. Jenner, concerning the renewed susceptibility of cow-pox, I trace all

the difficulties in which the question of vaccine protection has since been involved. I am the more inclined to do so, because the subject of re-vaccination is the only one which appears to have escaped the scrutinizing eyes of that distinguished philosopher. Let it not be supposed, however, that these reflections are either intended or calculated to impugn the value of his discovery. The great principle which he first made out is still acknowledged as a truth of inestimable worth. We have, in the cow-pox, a mild and perfectly safe disease, whose influence is directly opposed to that of small-pox. So long as the cow-pox preserves its efficiency, so long as the constitution is unsusceptible of re-vaccination, so long is it secure, not only against the ravages of small-pox, but against its *reception*. When the susceptibility of cow-pox (and with it of small-pox) has returned, there still hovers in the system (in a large proportion of cases) sufficient influence to modify the course and to soften the asperities of that dreadful disorder. That that influence is not permanent to the extent which Jenner supposed, and which analogy fully justified him in anticipating, detracts not from his merit. It should only serve to encourage us to persevere in the path which he pointed out, and, if possible, to perfect the noble design which was the unceasing object of his life.

DISPENSARY REPORTS.

By JOHN BURNES, M.D.

Physician to the Public Dispensary, Chancery-Lane.

[Concluded from page 466.]

CASE VII.—*Dangerous Cholera, with Bloody Evacuations and Bloody Urine.*

GEORGE AUSTIN, age 11 years, came under treatment on the 3d January, 1831. He was labouring under severe pinching pains in the bowels, violent vomitings every five minutes, and purging as often. The dejections were thin, slimy, bloody, and very offensive, and the urine had the appearance of water in which bloody meat had been washed. He had a violent pain in the head;

thirst was urgent; and nothing except toast and water could be retained on the stomach. The skin was hot, and the pulse rapid and small; the tongue red, coated, and dry; the lips black and dry.

He had been ill two or three days, the attack having commenced with a severe headache and a shivering, which persisted eighteen hours, when he became hot, and was seized with ventral pains, looseness of the bowels, and vomiting. The first dejections were black, lumpy, and very offensive; then thin and bloody, as already described.

To take *Ol. Ricini*, 3j. *Tinct. Opii*, gtt. iv. immediately; and eight grains of the Carbonate of Magnesia twice a-day.

All the symptoms were mitigated by the oil and laudanum, but as by the next morning no evacuation had been produced by the oil, a larger dose, of three drachms, was then prescribed, with four drops of Tincture of Opium. By this the pain was removed, and the diarrhœa and vomiting checked, and blood was no longer seen in the urine.

On the third morning, a third dose, of three drachms of oil and five drops of laudanum, was repeated, which moved the bowels several times, and by bringing away much offensive matter gave him great relief. A fourth dose was given on the fourth day, which was followed by dejections of a more natural character; and from this period the bowels were regulated by the magnesia, and he was soon discharged free from all complaint except weakness.

CASE VIII.—Cholera, fatal in 15 hours, without medical treatment.— *Sectio Cadaveris.*

A fine healthy girl, between two and three years of age, who, about a month ago, had had the measles favourably, and without any affection of the bowels, went out on a Sunday, and returned home deathly cold; and was soon afterwards affected with cough and running at the nose, which continued till Thursday, when, at four o'clock in the afternoon, she experienced a transient shivering, followed in a few minutes by a second. This was quickly succeeded by heat and flushing; and this again by sickness and vomiting, by pinching pains in the belly, and purging. At first the dejections were natural, though loose; but as the purging persisted, they became

pale, and very offensive. The vomiting and purging continued without remission through the night, with a thirst not to be allayed, and accompanied with torminous pains, which caused the little patient to throw herself about in agony. The whole surface of the body was burning hot, the abdomen more especially.

Notwithstanding this was their only child, the parents, from some cause or other, were averse to have medical assistance, and they had the grief to witness their child sink under this formidable disorder, and expire at seven o'clock in the morning, being fifteen hours after the period of attack.

Sectio Cadaveris.—The peritoneal surface of the whole alimentary canal, from the œsophagus to the rectum, presented a roseate pink colour, not arising from the capillary vascularity of inflammation, nor from the arborescent vascularity of congestion. There was no effusion of fluid or other matter in the abdominal cavity.

Interiorly the mucous membrane was pale throughout, but in the parietes of the intestines there was a preternatural vascularity. The whole intestinal canal was filled with a pale, glairy, opaque fluid, having a delicate yellow tinge. The gall-bladder contained pale bile.

The viscera of the chest offered no preternatural condition, with the exception of a recent effusion of blood, the size of an egg, into the parenchyma of the left lung, constituting a pulmonary apoplexy, which in all probability was caused by the violent efforts of vomiting*.

In reviewing the cases which I have adduced as illustrations of the dysenteric diarrhœa and cholera, I cannot but repeat my belief that they are modifications of the same disease—a part only of the alimentary canal being affected in the one, the whole involved in the other. So also am I disposed to attribute their existence and prevalence to one common cause, which, in the absence of any more probable, I must infer to be atmospheric influence.

The examples of the dysenteric diarrhœa and cholera present a gradation series which strongly marks their relation, if not identity. In the dy-

* My notes do not furnish me with the exact date at which this desperate case occurred, but it shall be procured from the parents.

senteric diarrhœa, for instance, there is first pinching pains in the bowels, with looseness and tenesmus; then the pains are torminous and frequent, the purging and tenesmus urgent, with an accompanying head-ache and corresponding depression of the powers of the muscular and nervous systems; next there is superadded to this assemblage of symptoms, sometimes nausea, and, lastly, cramps of the extremities. These cases, therefore, present degrees of the same disease; and what is cholera but an assemblage of the same symptoms, with actual vomiting in place of nausea? In cholera are the same torminous pains, purging, tenesmus, cramps, head-ache, depression of the muscular and sensorial powers, and the nausea aggravated to vomiting; the exhausting effects of which add danger to this form of the disease.

The simultaneous existence of the dysenteric diarrhœa and cholera in this metropolis during the last fifteen months, and of the cholera in Russia, in latitudes where it has not been known before to prevail epidemically, is a striking coincidence which invites to reflection, and suggests the inquiry as to whether the notion of atmospheric influence is supported by sufficient facts. Certain it is that infection has hitherto not been in operation here, and equally certain does it appear to me that the seasons, during the past eighteen months, have been characterized by epidemic peculiarities. The atmosphere has, on the whole, been loaded with humidity, and the extremes of heat and cold have not been such as to admit of continued hard frost or continued dry hot weather; but of that medium degree which, with humidity, is unfavourable to animal life. Heat and humidity are well known to accelerate the decomposition of animal and vegetable matter; while humidity without heat exerts but little influence, nor does heat without humidity. A very notable instance of the operation of these causes, according as they are combined, is offered by the plague, which, in two countries almost neighbouring, reigns at different seasons. At Constantinople it reigns during the summer, and declines or disappears in the winter. In Egypt it reigns during the winter, and is invariably destroyed by the approach of summer. The same principle operates in both countries: the summer of

Constantinople, which is hot and humid, favours the plague, while the summer of Egypt, which is hot and dry, destroys it*. It is on the same principle of destroying humidity, and with it contagion, that Acron is reported by Pliny to have cured the Athenians of the plague, by lighting a fire near the houses of the infected.

That humidity is the means or vehicle by which odours and deleterious emanations, animal or paludal, are suspended and transported by the atmosphere, may be demonstrated by proof familiar to the inhabitants of all towns; who, in moist warm weather, are assailed by offensive emanations from every drain and filthy corner they pass by. It is for this reason that bad smells often precede and foretel rain; their presence always indicates humidity, and when more than usually frequent and continued, as is the case at this time, and has been for the last eighteen months, they indicate also an unwholesome season.

In this state of things one would say, in the language of Bichat, viewing life as the "*ensemble des fonctions qui résistent à la mort*†," that the balance between the agents which tend to destroy life and the animal powers which preserve it, is comparatively in favour of the former. So true is it, as remarked by him, that "*Tel est en effet le mode d'existence des corps vivans, que tout ce qui les entoure tend à les détruire*‡." Here is the secret of the influence of climate on the duration of human life, which it is the business of civilization to preserve and to prolong.

The present prevalence and annoyance of these smells have been matter of common observation; and, independent of the effect of these deleterious admixtures, the humidity itself of the atmosphere is debilitating to persons generally; highly so to those whose respiratory apparatus is imperfect from pulmonic lesion; for the air inspired being loaded with humidity, evident it is that the air expired cannot carry off the usual and due proportion, and hence one great source of insensible perspiration is suppressed. Then, who has not

* Volney, *Voyage en Syrie et en Egypte*. The same author reports, that so great is the summer heat of Egypt, and so arid the atmosphere, here, that raw meat exposed to the sun is dried but not decomposed.

† *Recherches Physiologiques sur la Vie et la Mort*.

‡ *Ibid.*

experienced the mental depression and bodily languor which never fail to be induced by an atmosphere charged with humidity, and the elasticity of mind and body by a dry atmosphere, even of high temperature?

The present season, then, may with great propriety be said to predispose to epidemic disease; and epidemics have prevailed to a great extent. The influenza, an affection of the mucous membranes most exposed—that is, of the air passages—has been almost universal; and adynamic, or typhus fever, has abounded. Other disorders, too, have assumed a marked adynamic character, as the scarlet fever; the eruption of which has often been ill developed, and the attack so violent as almost to extinguish the vital functions at once, or so to depress them that the patients have sunk, sooner or later, without reaction. I have lately witnessed the scarlet fever attack by a violent vomiting and purging of the most offensive matter that can be conceived, which have sunk the powers of life and lowered the temperature of the body to a degree that has never been recovered.

These data lead me to the conclusion that the present season generates a predisposition to epidemic disease, which would not only favour the introduction of the cholera by infected persons, and the propagation of it when introduced, but would even go far to generate the disease; and the manner in which this frightful disorder has been shewn, by the second Report of the College of Physicians, to travel through the means of infected persons, calls for, and justifies, the precaution of the strict quarantine wisely put in force by the Government.

Two questions remain to be considered; one, the best means of prevention; the other, the best means of cure.

The first question comprehends the preventing the introduction of cholera from infected countries, the generating it at home, and the propagation of it when generated or introduced. No means appear better fitted to prevent its introduction by infected persons than the quarantine laws, as now enforced. The probability of communicating infection by merchandize is weakened by the presumption that the merchandize itself could have been but little exposed to the infection, and therefore but little impregnated with it; and the impregnation would be so diluted by re-

moval from the infected place, and by exposure to the air in loading, unloading, warehousing, and distribution, that little danger is to be apprehended from such a source. Nevertheless, where clothes (as of those affected with the small-pox) have been much impregnated with infectious matter, they will retain the power of infection for a long period, under favourable circumstances. An instance in point I remember to have heard from Dr. Hastings, of Worcester. A lady, whose child had died of the small-pox, and who was so much distressed at the sight of any thing which reminded her of her loss that she locked up all its clothes in a drawer, which was not opened for twelve months; when she herself, or some person about her, caught the small-pox, from exposure to the infected clothes.

As it is beyond our reach to correct the epidemic constitution of the atmosphere, we must strive to counteract its influence by avoiding and abstaining from all causes which would co-operate with it in the production of disease. Temperance, with its companion, chastity, is the first rule to be observed; for it is admitted by all, that persons of a gross and corpulent habit of body, attacked with the cholera, or the yellow fever, are almost uniformly carried off; and intemperance is believed to be more pernicious to the European, in India, than the climate itself. Next to temperance, is the precaution of avoiding all articles of food which are known to disorder the stomach and bowels, always susceptible at this season; as shell-fish which is not fresh, *out-of-season* salmon, unripe fruits, many crude vegetables and fruits—as cucumbers, plums, cherries, and vegetables which are hard when boiled. And to those who indulge in melons and peaches, I would recommend the Italian custom of guarding against an indigestion, by a *goutte* of brandy, or sound wine. The same stimulus should also be taken after strong meats, as goose or duck, and on any occasion where the feelings of indigestion arise. The safest way is to abstain from all things likely to disagree.

Thirdly, all drains should be attended to, and odours emanating from them corrected by the chloride of lime used moderately; for if used in too free a manner, the odour from it is less supportable to many than the one that it is intended to do away. It is, I imagine,

the injudicious and excessive use of this antiseptic which has brought it into disrepute in Russia, for it is otherwise difficult to believe that good does not accrue from destroying an offensive odour.

In ships, the custom of washing the decks frequently, which, I have understood, has of late much declined, is very pernicious, by creating humidity, and certain to favour the invasion of an epidemic. In this climate it may, perhaps, be thought superfluous to mention the night-air as a cause to be shunned, on account of its greater humidity and greater impregnation with noxious effluvia: yet this is a period when trifles should not be altogether disregarded. The night-air in warmer climates is highly pernicious, as every body knows; and it should be remembered that we are at this time threatened with a disease hitherto peculiar to such climates, and we should therefore not be slow to adopt the precautions peculiar to them also.

A friend of mine, in travelling over the Pontine Marshes, was struck with the rude health of the postmaster at one of the inns, as compared with the squalid creatures about him, and inquired how it was he preserved himself from the malaria? he replied, that it was his custom to kindle a fire every evening, and not to quit the house before the sun had risen some time, nor to remain out of doors after it had set.

The propagation of the cholera by infection, should it prove to be infectious, is plainly the cutting off intercourse with the infected persons as far as is practicable; next to which, cleanliness of the patient's apartment is most important. It is true, that no means can disaffect a room or house so thoroughly as scouring and whitewashing; but this can only be done where there are no patients, that is, where the disease has disappeared. It is impossible to whitewash a room or ward full of patients without incurring an unjustifiable risk from damp. But ventilation is practicable, and the offensive odour from the evacuations might be much prevented by the simple means of putting a small quantity of the chloride of lime in the nightstool or other receptacle, and taking care that they are covered when carried away, and indeed at all times. Examples of the effect of nauseous odours on the system are not wanting. A man who had suffered amputation at the shoulder-joint,

in St. Thomas's Hospital, by Mr. Green, and who had gone on well up to the ninth day, was now suffering in health from the fœtor of the discharge. He complained of the smell, that it affected his appetite, gave him a pain in the head, prevented him sleeping, and making him feel very weak. The wound was in consequence dressed oftener, the discharge was less offensive, and he immediately rallied. Another example was furnished by a healthy young man, who, in assisting to remove a patient labouring under the adynamic fever, in a severe degree, was so affected with the odour which emanated from the bed, that he soon grew faint, and was seized with a vomiting and purging, which indisposed him for two or three days. I am also acquainted with a gentleman who had a cholera in the autumnal season, which he attributed to sleeping in a chamber adjoining the cheese-room, in a farm-house, from which proceeded a very powerful odour, to him unpleasant.

The treatment is a subject for serious reflection. It behoves every one to consider within himself what is the nature of cholera pathologically, as well as to arrive at some conclusion as to the remedies he should employ with the fairest probability of success, should he be summoned suddenly to administer medical aid. It may be, that the first person he is called upon to treat, is his wife, or his child, or some personage whose life is of vast importance to his family connexions, or to the state.

From experience in the dysenteric diarrhœa and cholera before described, as also from what I have learned of the Indian cholera by reading and report, I do not hesitate to be of opinion that it is essentially an irritation of the mucous lining of the stomach and bowels induced by acrid secretions, whether from the liver or the membrane itself, which irritation is again the cause of the spasmodic torminous pains and of the cramps in the extremities: also, that this irritation, induced by the acrid secretions, re-acts, and provokes a continuation of such secretions, to the danger, if not the destruction, of the patient. In this view of the disease, the indications are to appease the irritation, and carry off the offending matter; which, from the uniform success that has attended the treatment of the dysenteric diarrhœa and cholera, the subject of this

communication, I should endeavour to accomplish by the castor oil and tincture of opium—the oil in small, the opium in moderate doses, as from fifteen to twenty drops, with one drachm of the oil floating on water. The quantity of laudanum I mention greater than I have hitherto had occasion to use, on the supposition that an epidemic cholera would be proportionably severe. The tincture of opium, as may be anticipated, has not been found in Russia to be effectual in proportion to the quantity; for, where the powers of life are reduced, large doses of laudanum would be more likely to extinguish than to rally them. The laudanum and oil I should repeat, if necessary, in the manner narrated in the foregoing part of this paper. The alarming depression of the vital powers, which is often simultaneous with the attack, calls for the support of hot brandy and water, ammonia, and the like; and the temperature of the body, when reduced, should be restored by the most efficacious means at hand, than which none is, perhaps, better than to envelop the body in a thick blanket wrung out in very hot water; this blanket to be covered by another, to prevent evaporation. A seaman, who had the yellow fever in the West Indies, assured me, that he was cured by a glass of grog, which was the first thing that was retained on the stomach.

The irritability being allayed, and the vomiting and purging checked, I should rely on magnesia, in the dose of from twelve to twenty grains twice a day, to regulate the action of the bowels; for, as they are easily disturbed after a cholera, stronger medicines would not be advisable.

Many will think that I have treated this subject with more earnestness than circumstances demand; precaution, however, is a safe principle to act upon, and it is my custom to give full value to the doubtful side of every question. It is to be hoped we shall be spared the awful visitation; and, should the cholera assail us, it is presumed the cleanliness of our towns, the care which is taken of our poor, and the temperature of our climate, will protect us from such dreadful ravages as it is lamentable to know have been committed by it on the continent.

Too partial a view is, perhaps, taken of this metropolis; in which there are

numberless houses, fair to look upon, and yet contain within themselves impurities which would fan the flame of infection once kindled; and true it is, that the wealth and splendour of this unrivalled town are alloyed with a proportion of filth and misery not to be conceived.

24, Spring Gardens,
July 6, 1831.

MEDICAL STATISTICS.

To the Editor of the London Medical Gazette.

SIR,

IN Dr. Hawkins's work on Medical Statistics, there are some statements which appear to lead to conclusions very far from the truth. I do not doubt that great care has been taken by the author to collect his materials from the most authentic sources; yet that does not diminish the importance of errors, if such they be.

The following are two of the most remarkable paragraphs:—“Pembroke-shire and Anglesey have only one death yearly in eighty-three individuals;” p. 16. “In 1811, the annual deaths (in Manchester) are diminished almost beyond belief to one in seventy-four;” p. 19. Now if the annual mortality is 1-74, or 1-83, the inference is, that the mean duration of life for the whole population in those places, is 74 and 83 years respectively. To illustrate this, let us suppose any series of objects undergoing a constant subtraction and addition; as, for instance, any board or council of twenty men, of whom two go out annually, and two are annually added; there is an annual resignation of 1 in 10; and it is obvious that the mean duration of their existence as councilmen is 10 years.

It will no doubt be said, that the progress of human beings from the cradle to the grave, bears no analogy to the case adopted as an illustration, since they die off at all intermediate ages, from birth to 100 years and upwards. But this only renders the circumstance more extraordinary, that, notwithstanding the numbers who die in infancy and childhood, the survivors live to so great an age, that the average annual mortality is still only 1 in 74 or 83. If we suppose that one half of the born die before

they are 24*, i. e. 50 years under the average duration of life in Manchester, the remaining half must live to 50 years beyond that period. Hence we should find that in Manchester, those who survive 24 should live to 124 and upwards; and in Anglesey and Pembrokeshire the longevity should be found still greater.

Again, it will be said, that Manchester is a great manufacturing town, receiving constant accessions of young adults, who make the average duration of life appear greater than where the population is a mixture of all ages in due proportion. Admitting, for argument, the force of this reason, directly the converse ought to be found in Pembrokeshire and Anglesey, where the population being rural, may be supposed to detach many of their young adults to become inhabitants of cities.

The progress of population, it is true, differs from the illustration given above, inasmuch as it constantly increases; whereas the number of the council is supposed to be permanently 20. If the annual increase of population were 20 or 30 per cent. it would materially influence the calculation; but as it is only 1 or 2 or 3 per cent. it can make very little difference.

The next remarkable statement is the great decrease in the rate of mortality during the last half century. For since it involves a great increase in the duration of life, it is almost sufficient of itself to account for the increase of population during that time. At p. 16 it is stated, "In 1780 the annual mortality of England and Wales was 1 in 40;" "in 1821, the yearly mortality sinks to 1 in 60, or 1 in 58." Hence, in 1780, the mean duration of life was 40 years, and in 1821 it was 58 or 60 years. If people lived half as much longer in 1821 than they did in 1780, there must necessarily be half as many more on the face of the country, without allowing any thing for the powers of increase during forty years. Let us again take for illustration the Council. When there is an annual addition of two members, and the duration in office is ten years, the whole number is 20. But if the duration in office be increased to fifteen years, the number in office will be increased to 30.

* "The result of various censuses and tables of population is, that one half of the born die under years of maturity."—*Godwin on Population*, p. 28.

According to Mr. Rickman, the population in 1780 was 7,953,000. If the duration of life was then 40 years, and increased in 1821 to 60 years, there should at the latter period be found 11,929,500; and this approaches very near to the returns of 1821, which gave 12,218,500. Hence, if the data are correct, it would appear that the great increase of population is chiefly due to diminished mortality, there being constantly nearly three generations instead of two in existence. Again, if the 12,218,500 of 1821 enjoy an average life of 60 years, it follows, that if the duration of life should sink to forty years, or if the annual mortality should return from 1 in 60 to 1 in 40, the population would fall off one-third, and would be 8,145,666, or very little more than that of 1780.

Seeing that the results of this reasoning are so extraordinary, I suspect that there are errors in the data. I am inclined to think that the estimated mortality in Manchester, Pembrokeshire, and indeed in all England, is much too low; and also that the mortality of 1780 does not differ so widely from that of 1821, as 40 does from 58 or 60.

I am, Sir,
Your obedient servant,
H. O.

July 1831.

ANALYSES & NOTICES OF BOOKS.

"L'Auteur se tue à allonger ce que le lecteur se tue à abrégé."—D'ALMABERT.

Treatise on Cholera Asphyxia, or Epidemic Cholera, as it appeared in Asia, and more recently in Europe. By GEORGE HAMILTON BELL, Fellow of the Royal College of Surgeons, Edinburgh, late Residency Surgeon, Tanjore. Blackwood, Edinburgh, 1831. pp. 160.

THE latest treatise which has issued from the press on the engrossing subject of cholera, lies before us, but how long it will remain the latest it were hazardous to conjecture; for although the author has been the first in this country to seize the opportunity of offering to the public something wherewith to gratify their thirst for informa-

tion on a question which concerns the interests of many, and the fears of more, yet we doubt not that the press will speedily inundate the land with Essays, Hints, Treatises, and Observations, in every gradation, from the ponderous volume to the ephemeral advertisement in the shape of a letter to some popular newspaper.

We would not, however, be understood as applying any taunting observations to the author of the present treatise, who has had good opportunities of witnessing the disease, and comes not forward merely on the spur of the moment, having, he informs us, been for some time occupied in preparing his notes, with a view of competing for the prize offered by the Russian Government for the best treatise on cholera. Recent events have naturally rendered the prize a secondary object.

Mr. Bell informs us, that from 1818 to 1827, he served as an assistant-surgeon in Madras, during a considerable part of which time he was on duty at the General Hospital, under Mr. Annesley, and witnessed the disease under every variety of circumstances—"in the hospital, in the camp, and in private dwellings." It is not unnatural that we should think favourably of this work, as we find in it the strongest evidence in favour of the description and opinions which we offered to our readers in a recent number: indeed, there exists a remarkable coincidence of sentiment on several disputed points. Thus Mr. Bell, as well as ourselves, regards the name which has been bestowed upon the disease as a great and primary source of error: "of all appellations (says he) that of cholera morbus is the most unfortunate, though perhaps more likely to mislead the student than the practitioner:" and again, "it will be seen by the sequel that it is of the utmost consequence to forget that the Indian disease has ever received a name so likely to interfere with our attaining a correct acquaintance with its nature." (See also Gazette, No. 186, pp. 404-405.)

The author regards the appellation of cholera *asphyxia*, proposed by Mr. Scott, as the most appropriate, and in this also we concur.

Another point of more importance, because of a practical nature, in which a similarity of opinion is expressed, relates to the injurious consequences of

the immense doses in which the Indian practitioners are in the habit of exhibiting calomel, opium, and other powerful medicines, (see Gazette, No. 186, p. 408.) "The general mistake in the treatment of cholera has been the administering of too large doses of those medicines which have obtained a high character among practitioners. The large doses of calomel and opium, which many are in the habit of presenting, are especially pernicious. This practice seems to arise from the nature of the disease being misunderstood. A patient is suffering from violent vomiting and purging, and excruciating spasms, and the indication appears to be to allay these high actions. Hence opium and calomel are prescribed in quantities amounting to what are considered sedative doses. There can be little doubt that more injury than benefit has resulted from this practice; for, should the disease be overcome, and the medicines not have been evacuated, 10 or 20 grains of opium, and 60 or 100 grains of calomel, must act as poison on the restored functions. The bad effects of the mistaken notions, as to any quantity of opium being not only safe, but useful, in the treatment of cholera, have not been confined to those licensed to make such experiments on their fellow-creatures, but have been resorted to by gentlemen, who, having no medical man near, were obliged to prescribe for sick servants and others. It is well known that patients have died from the after-effects of over-doses of the narcotics so administered. One gentleman, in particular, of my acquaintance, was rendered seriously unhappy, because a servant, suspected to be labouring under cholera, to whom in a few hours he had given 500 drops of laudanum, died evidently from the effects of the medicine.

"The object being then to stimulate the system, medicines should be prescribed in such quantities as are known to act as stimuli. In fever, a scruple of calomel, no doubt, will very often allay at once the irritability of the stomach; and experiments seem to prove, that in large doses this medicine acts sedatively on the gastro-enteric mucous membrane. It has been ascertained by experience, that most narcotics, in large doses, act as sedatives very soon after being administered, while it is unquestionable that

the same medicines, in small quantities, excite the circulation, and are consequently to be regarded as stimulants. Early in my practice in cholera, I found reason to believe, that while there was positive good to be done by small quantities of these medicines, frequently repeated, their good effects were very questionable in the powerful doses which were commonly prescribed."

Yet another very important practical point, with regard to which we find in the work before us strong corroboration of the opinions we offered, is that which relates to the administration of fluids, (see Gazette, No. 186, p. 409.)

"It was at one time the general opinion (says our author) that it is dangerous to allow a patient, under the influence of cholera, to have cold drinks. The prejudice against these (which is still very general) arose from the circumstance of vomiting and purging being very often aggravated, apparently by the patient's attempting to allay his urgent thirst by drinking cold water. The distressing craving of the patient for cold drinks, and his almost hydrophobic horror of the hot fluids which were invariably offered him, induced me early in my practice to doubt the propriety of rigorously prohibiting the gratification of a desire which was in every case so strong.

"Mr. Annesley found by experiment, that tartaric acid dissolves the viscid matter which is so often found after death lining the enteric mucous membrane; and he latterly allowed his patients lemonade, a beverage which they found delightfully refreshing. He also prescribed a drink containing nitric acid, in the hope that while it was agreeable to the patient, it might communicate oxygen to the system. Whether we admit the importance of dissolving, while the disease exists, the fibrinous matter on which tartaric acid is here said to act, or imagine that oxygen can reach the system in the way Mr. Annesley seems to expect, when it is no longer absorbed in the lungs, the practice of Mr. Annesley is certainly a real comfort to the patient, and can be attended with no bad effects."

On the subject of bleeding, Mr. Bell does not express himself less confidently than the other Indian practitioners who have witnessed its effects; and the only difference between his opinions and

those which we had ventured to give in our "epitome" is, that he speaks more confidently of the success of blood-letting than we fear the facts entirely warrant. Thus he speaks of the "inevitable" fate which seems to await the patient if left to the unassisted powers of nature, and "the relief almost as certain which is afforded by a proper method of treatment." While in another place he remarks—

"The effect of blood-letting in cholera is obviously in a great degree mechanical. The power of circulation has been injured; it is no longer capable of duly distributing the mass of blood in the system; and the cessation of the usual secretions, the deficient pulmonary function, and the effect of the discharges, have rendered the blood wholly unfit for vital purposes. By bleeding in such circumstances we relieve the gorged vessels, and thus enable the weakened energies of the circulating power to act on the disburdened organs of circulation, and to restore the current of the blood. The lungs recover their function, pure blood is thrown into the left heart, the arteries are again filled with fluid fit to support life: this, it may be supposed, re-acts on the sympathetic system, and by and by its energies are completely restored. In this way only can the effect of blood-letting in cholera be explained. No other method will account for the almost instantaneous recovery which so often follows venesection in such a condition of the system as has been described—a recovery more immediate than that which follows the removal of mechanical pressure from the brain. And it is confidently asserted, that in no case in which it has been possible to persevere in blood-letting, until the blood flows freely from the veins, and its colour is recovered, and the oppressed chest is relieved, will the patient die from that attack of the disease."

And again—

"In commencing the treatment of cholera, then, no time is to be lost in endeavouring to bleed the patient. He should be laid in a warm bed; and the great object being to get blood to flow, it is important that the operation should be performed with as little fatigue to him as possible. He should be kept in the recumbent position; and, as an answer-

ing the two next indications will be the means of forwarding this important object, immediate recourse should be had to stimulants—applying artificial heat, using friction, &c. The rule as to the extent to which the removal of blood should be carried, is very simple; it has no reference to the prostration of strength, or to the constitutional stamina of the patient. The power of circulation is unable to give motion to the volume of blood which has accumulated in the venous system, and which has been rendered, by the cessation of secretion, the diminished function of the lungs, and the disordered actions, incapable of supporting life; and blood is let, until it appears that so fatal a condition of the vital fluid has been changed. In other words, the blood ought to be allowed to flow until the natural current in the veins has been restored, and there is evidence, in the improved colour of the blood, that the lungs have recovered their function. If opening one vein be not sufficient, let others be tried; and, until the disease yields, the practitioner must persevere in his endeavours to accomplish this great object. In the outset, perhaps only a few drops of tar-like blood can be obtained; by the use of internal and external stimulants, some good appears to be done, and the pulse rises;—renewed attempts should immediately be made to remove blood; nor should these be desisted from while life remains. In addition to the lancet, leeches or cupping glasses should be tried."

We have thus given the opinions and statements of the author in those points which relate to practice: into the speculative parts of his work it is not our intention to enter. Mr. Bell is a non-contagionist, and adduces some very strong facts in support of his doctrine. With regard to the pathology of the complaint, he looks upon the affections of the respiratory and circulating systems as the effects, not the cause of the primary morbid condition, which he thinks is to be found in the nervous system, especially the great sympathetic.

[Since the above was written, we perceive that an *Essay on Cholera* has been published by Dr. Bisset Hawkins, favourably known to the public by his valuable work on Medical &

LETTER FROM WARSAW RELATING TO CHOLERA.

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We have seen a copy of a letter from Dr. Foy, now at Warsaw, to Dr. Bally, of Paris, in which he gives a description of the cholera as it has prevailed in that city. The enumeration of symptoms too closely resembles those descriptions with which this and almost every other journal has recently teemed, to render it necessary for us to transcribe them; we shall only remark, that his account removes all doubt (if doubt can be said to have existed since the observations of Sir William Crichton were made public) as to the identity of the disease with that which has prevailed in India. There are, however, some parts of the letter containing matter which is new, or, at least, with regard to which our information had not previously been so specific. The treatment most generally employed is thus minutely described. Bleeding from the arm to the extent of twelve or sixteen ounces—the application of from eight to twelve cupping-glasses on the abdomen—a warm bath—frictions all over the body—cataplasms to the belly—for drink, warm water with honey, or an infusion of peppermint, with water of bitter almonds, in the proportion of a drachm to eight or ten ounces. In addition to the above remedies, the following is exhibited six times a day:—camphor and opium, of each one grain, calomel from a grain to a grain and a half, sugar ten grains. A modification of the treatment frequently adopted is, to give a solution of chlorine internally, according to the following formula:—A saturated solution of chlorine in distilled water, simple syrup, and plain water, of each two ounces. Mix. A spoonful every half hour. The only other variation of treatment mentioned is, the substitution of some sudorific for the preceding beverages.

Dr. Foy says, that civil practitioners have saved many of their patients. "In the city (he remarks) the disease is generally less violent, and the requisite means of cure are not wanting; but, among the unfortunate Polish soldiers and Russian prisoners, whose skin is remarkably thick, it is impossible to restore, with sufficient promptness, the cutaneous and
vital functions. The primary causes

of cholera are still obscure, but what appears certain is, that the disease has always been observed to appear, or where already present, to become aggravated after four consecutive days of a north wind, after any sudden diminution of temperature, and after draughts of cold water."

As to contagion, the doctor is a decided unbeliever. During half an hour he respired the breath of a patient with cholera, and afterwards tasted the matters which were vomited. He acknowledges, however, that though well next day, he became indisposed on that which followed, and continued unwell for three days; but says his symptoms were not those of cholera. He next inoculated himself, in two places, with the blood of a patient as it flowed from the vein; two days after which he had a shivering and violent head-ache. These experiments evidently prove nothing either way. Dr. Foy was exposed to the same causes, be they what they may, which were producing cholera in those around him, so that if he had taken the disease after the inhalation or inoculation above-mentioned, it would by no means follow that he had derived the malady from them; on the other hand, that he did not take the disease, being exposed to the causes which produced it in those around him, shews that he was not predisposed to it, and his Quixotic experiments, in our opinion, demonstrate nothing more.

MEDICAL GAZETTE.

Saturday, July 16, 1831.

"Licet omnibus, licet etiam mihi, dignitatem *Arts Medice* tueri; potestas modo veniendi in publicum sit, dicendi periculum non recuso."—CICERO.

THE NATIONAL CEMETERY.

THIS project has actually begun to be put in execution. England in her capital is slowly attempting to follow the example of many of the cities and towns of the continent, and of her own provincial districts; and, as usual, it is to a little handful of individuals she is to be indebted for the commencement of this excellent *national* undertaking. The *Perè la Chaise* plan, necessarily on a

small scale, is that which is to be adopted. Nine thousand five hundred pounds have been invested in the purchase of fifty-four acres of land. The site—on the Harrow-road, two miles from town—is eligible. The speculation bids fair in every respect: and there can be no doubt but that, managed with prudence, the designs of the company will be, ultimately, completely successful.

As the first step—which is usually accounted "half the battle"—has been thus auspiciously taken, and the present project has got the start of all others in the same line—if it have not utterly thrown them out, or extinguished them altogether—it is not our wish to draw invidious comparisons between the plan adopted and any other which we might previously have been disposed to patronize. The Cemetery Company's *Père la Chaise* is what we have now to do with, and it is a subject on which we deem it our duty to make one or two short remarks. Whatever objection we have hitherto made to the plan, we wish it to be understood, has simply originated in our own individual views of its comparative inadequacy to the end proposed: compared with another project, which, we, perhaps too sanguinely, hoped might have met with a greater degree of public attention and encouragement, we maintained, and do still maintain, that this expedient of a burial-ground, after the fashion of that in the suburbs of the French metropolis—more limited in extent—more unaided by natural feeling and peculiarities—and more helpless in point of the external sanction which a legislative enactment confers—must prove to be a mere speculation, an experiment in a small way, leading, if unassisted by higher influences, to no useful—at least, to no great *national*—purpose. We can very well admire the perseverance with which it has been brought to its present state of forwardness; at the same time that we advise

the patrons of the plan to consider how temporary an expedient they propose to themselves, and to be prepared to find how extremely precarious and difficult their designs will prove to be, if not speedily backed by the authority of the legislature. In France, before the beautiful and "sentimental" Père la Chaise could be rendered available as a burial place for the good citizens of that metropolis, an imperial edict forbade interment within the city walls, and in other ways did every thing that was necessary to sanction the new cemetery. In like manner, as we pointed out in a paper on the subject, published some months ago in this journal, the first great object of any new company, aiming at the establishment of a national cemetery beyond the precincts of London, should be to *secure an enactment prohibiting sepulture within the city*: without this, the appellation of a national concern applied to it is a misnomer. As to the act of legislature, with which it is intended to consolidate the joint-stock establishment, it will be an excellent thing in its way, no doubt, when it is procured; but it must not be confounded with the other legislative measure to which we allude, and the want of which, we fear, will long constitute a radical deficiency in the present scheme for supplying a national necropolis.

When we speak of the inadequacy of the present mode of proceeding, we would not be misunderstood: we do not mean that we object to the limited extent of ground with which the company intend to begin—though there is something in that; an area of fifty-four acres, laid out on the model of the favourite Parisian cemetery, with its walks and plantations, as we take it, cannot conveniently accommodate above eighty thousand bodies, deposited in the usual horizontal way; whilst, if the statement of the company be true, that the new ground will have very superior

attractions, at the same time that 40,000 interments annually take place at present within the metropolis, it will follow that, in a very few years—say seven—the ground will be quite full; and, of course, in order to obtain more room, it will be necessary either to purchase more land, probably at the expense of a thousand pounds an acre, or to proceed to disturb and dig up the first occupiers of the soil, before they are sufficiently decomposed, to admit of the intrusion of new comers. But we mean by the inadequacy of the plan, the fact of its inevitably falling far short of the wants of the metropolis—a few short years rendering the establishment of "another and another and another" of these graveyards necessary to supply a constantly recurring want; while it has little, if any thing, to recommend it on the score of creditableness or renown as a national concern. Is the tinsel and tawdry horticultural embellishment of a Père la Chaise suited to the character of our nation? Are we called upon to cultivate a romantic and sentimental passion of gossiping with the shades of the dead? It is a fact: these were among some of the more prominent inducements held out by some of the principal speakers at the meeting in Exeter Hall on Tuesday last. "It will be a spot," said one, "where the melancholy mourner will find consolation in his sorrowing, and where he may pay the last sad tribute of his tears without disturbance!"—"Here," said another, "the living and the dead may mingle and commune on the confines of mortality, &c.!" Now when matters go to this, we are provoked to strip them of their sentimental finery, and to show them in their true naked colours and proportions. We can see nothing, then, in the immediate project of the Cemetery Company, except the establishment of a large and handsome *grave-yard* outside the town, where per-

sons may be induced to bury their friends and relatives, in preference to cramming them into the already saturated churchyards of the metropolis: an establishment got up in imitation of, but vastly inferior to the cemetery of Liverpool; a speculation, in short, founded, like most other speculations in political economy, on the existing demand for the article about to be supplied—and likely to be productive to the shareholders at a very considerable rate of interest. This is the simplest and most direct view that can be taken of the nascent *Père la Chaise* plan, nor is it any thing but mere rhetoric and fancy to describe it in any other light.

Still, however, we are ready to hold out the hand of encouragement to the immediate design of the company: it promises ultimately to be eminently conducive to the health and beauty of the metropolis; and though not exactly framed on that scale of magnificence and that broad basis of utility which we could wish, as becoming the wealth and the wants of a great nation, we can yet appreciate it as leading in the end to the production of some such great scheme as we should deem truly and peculiarly worthy of the epithet of a *national* concern:

DESPATCHES FROM DR. RUSSEL
AND DR. BARRY.

DR. RUSSEL and Dr. Barry, who had proceeded to St. Petersburg for the purpose of obtaining the necessary authority to secure the facilities at Riga requisite for the objects of their mission, finding that cholera had made its appearance in the Russian capital, have judged it advisable to remain there, in order to watch the disease in a situation where they have an opportunity of witnessing its commencement as well as its progressive stages. The despatch was written so soon after their arrival, however, and the breaking out of the malady had been so recent, that time

did not serve for more than identifying the cholera which prevailed on the shores of the Baltic with that which has been of late years the scourge of Hindostan. This identity was at once recognized by Dr. Russel, to whom the cholera of India was familiar. Little, if any doubt, can be said to have existed on this point: still it is satisfactory to have the general opinion confirmed by one who has been an eye-witness of the disease in its two very different and distant localities. The only circumstance worthy of notice, in addition to those we have previously mentioned, is one pointed out by Dr. Russel—namely, the peculiar and characteristic sensation communicated by the tongue of the patient on applying the finger to it. In appearance it is at first but little altered, yet even then it feels cold, and exactly like touching a portion of raw flesh.

No opinion is expressed in the despatch as to the contagious or non-contagious nature of the disease. The mere fact of its manifestation in St. Petersburg, despite the triple cordon of troops, is a *prima facie* evidence against contagion; but by a private letter which is in town, we learn that the first case occurred in a person who had come down the river in a bark; the second in an individual who had been on board after its arrival; and the third in a soldier who had mounted guard on the boat, to prevent any intercourse with those on shore. If this be the whole truth, and nothing but the truth, it is almost conclusive in favour of the contagionists; but it is to be kept in mind, that the Russian authorities had previously decided that the disease was infectious, and the testimony of those who have already committed themselves by the expression of a positive opinion is to be received with some degree of caution.

The disease was rapidly spreading, and we doubt not but that the next arrivals will bring farther particulars from the medical commissioners.

CHOLERA NOT IN LONDON.

SCARCELY a day passes without some new report connected with cholera being put in circulation: one of these, which has attracted most attention, and consequently excited most alarm, was founded on an occurrence which took place a few days ago in the City Road. Several persons in one family died of fever, some of whom had *coffee-ground* vomiting, while one individual in the neighbourhood, who was carried off very suddenly, is supposed to have taken poison. In none were the symptoms those of the cholera. As, however, a police-man, stationed to prevent the entrance of intruders, said that cholera had broken out, it may readily be supposed the alarm in the neighbourhood was great. A case which, at any other time, would have excited no particular attention, has also occurred at Guy's hospital: the precaution was taken of placing the patient in a separate room, but the disease proved to be only the common bilious cholera of this country; instances of which frequently occur at this season. At the Westminster Hospital also, a severe case of a similar affection has occurred; and one of a suspicious nature, the particulars of which were transmitted to the authorities in London, also took place in one of the towns in the north of England. We are happy, however, in being able to state, that though cases of vomiting and purging, with cramps of the limbs, have been met with, they are such as would not have caused a moment's alarm but for the excited state of the public mind, and that no example of the malignant disease raging in the north of Europe is known to have shewn itself in this country.

DR. ROGET.

At the last quarterly meeting of the College of Physicians, Dr. Roget was elected a Fellow.

This tribute to talent, extensive learn-

ing, and those acquirements which dignify the character of the physician, is no less honourable to the College than it must be gratifying to the gentleman on whom it has been conferred.

FUMIGATIONS.

Our informant was in error on one point, with regard to the effect produced by the fumigations on the test papers introduced between bales of hemp, alluded to in our last number. We stated that though chlorine gas was used, the litmus was "reddened," an effect which is readily produced by the weakest acids, but which could not have resulted had the chlorine itself really permeated the goods. We have been informed, however, that the usual effects of chlorine resulted, and that the litmus papers were blanched; this, then, proves that the gas pervaded those parts where the tests had been introduced, and, as it appears, without injuring the fibre of the hemp. The circumstance above mentioned, however, in no degree affects our observations on the probable inutilty of chlorine as a fumigation, in preventing the propagation of cholera.

REPORTS OF CASES OCCURRING AT PUBLIC INSTITUTIONS.

HOSPITAL OF PISA.

Extirpation of an Osteo-Sarcomatous Tumor of the Upper Jaw. By Professor Regnoli.

(GIULIA A., aged about 22, was for the first seventeen years of her life a perfectly healthy girl. At that period she received a blow on the right cheek; after which she began to feel in the incisor teeth of that side, a pain, not very severe, but constant, and annoying her with the sensation of cold when in the act of drinking. A portion of the gum began gradually to swell, and there was formed ere long a soft and circumscribed tumor, about the size of a small nut, just over the alveolar processes of the incisor teeth. An incision being made into it, gave issue to nothing but an abundance of blood, which the surgeon was obliged to staunch with nitrate of silver. The repeated application of the same caustic destroyed the tumor in less than a month, but the pain still continued fixed and constant in the same spot. In the course of six weeks

the tumor shewed itself afresh, and with a growth far more rapid than ever. The catamenia now became suppressed, and hæmoptysis and convulsions began to distress the patient. She was advised by a physician to have the tumor extirpated and cauterized, but the sight of the red hot iron threw her into her habitual convulsions, and the operator, after removing as much as he could of the diseased part, was obliged to be content with the application of a concentrated acid and some *lapis infernalis*. But the tumor grew again; and, moreover, there was perceptible about the base of the right ala of the nose another tumor, which, after remaining stationary for a time, began to grow apace, and painfully to afflict the patient. In eighteen months it attained so alarming a magnitude that the poor girl was fallen into extreme despondency, and almost cursed her existence. She, however, was aware that she still had a chance of her life by extirpation, and accordingly determined to make one more trial of art. With this view she entered the hospital at Pisa.

"I saw her (says Signor Regnoli) for the first time on the 6th of April, 1831. The disease consisted in this tumor of the right jaw, intimately connected with the bone, at its base about the size of an ordinary apple, extending from the second molar of the right side to the canine tooth on the left, lifting up the ala of the nose, and turning aside the cartilages to the left. The teeth within this space were very loose, but unaltered in colour or form; their gummy sockets, however, as well as the internal membrane of the upper lip, were highly vascular. The tumor felt hot to the touch, soft in some places, hard in others; inelastic, immoveable, unequal, pulsating too in some degree in its lower part (owing to the increase of calibre in the arteries of the gums), and bloated with the quantity of blood which it contained. The patient occasionally suffered much from lancinating pains.

"It was clearly a case of osteo-sarcoma; and the lymphatic system and general health of the patient being good—no fever—no want of appetite—no wakefulness—the catamenia, too, being returned—and there being but few accessions now of either the hæmoptysis or convulsions, I made up my mind to operate; and the patient consenting eagerly to the proposal, she was simply

prepared for the occasion with a *purgative oil draught*.

"On the 11th April, having placed her in a suitable position, I stretched and raised the upper lip, and with the common convex bistoury divided the integuments along the right lateral portion of the nose, beginning immediately beneath the lower eyelid. This division enabled me to separate readily the sound from the unsound tissues, to dissect the cartilages of the nose, and to distinguish the precise limits of the diseased part. Following the tumor, always, though, within the sound bone, I carried the bistoury through the periosteum all round; and then, with chisel and mallet, circumscribed the tumor, first in the right maxilla, then in the left, and lastly in the palatine vault. I detached it; and was particularly anxious to do so speedily, in order to save the patient's blood, for it would not have been easy to deliberately secure the arteries which went to the centre of the tumor. The hæmorrhage was checked with the actual cautery, applied only to the points of attachment. The division of the lip and cheek was united by the first intention by means of the twisted suture; and in order to support the lip on its posterior side, I merely put a little charpie into the cavity left by the tumor. Louis's bandage for hare-lip completed the arrangements.

"On examining the tumor, our diagnosis was confirmed. I took a pair of compasses, in presence of the pupils, and measuring the dimensions of the diseased mass, applied them to the face of a young woman of the same age as the patient. We found then that the bistoury had been carried close by the base of the apophysis of the upper jaw, between the first and second molar teeth; had opened partly the antrum of Highmore, and taken off a portion of the middle olfactory partition: that on the left maxilla it had been driven between the canine tooth and the second incisor: thus a portion of the alveolar processes, containing six teeth, had been carried away along with the margin of the anterior opening of the nostrils. In short, it appeared that all had been removed that was contained between the palatine apophyses of the two maxillæ.

"The patient during the whole of the operation displayed the greatest courage, and never once gave sign of agony, except just when a number of

filaments of the trifacial nerve were divided. She was conveyed to a separate ward, and committed to the special charge of two of the pupils.

"Apprehensive of hæmorrhage and inflammation, I ordered her to have ice constantly in her mouth. I directed her diet to be rigorously low, chiefly consisting of copious cooling drinks; and positively forbade all use of speech. Half an hour after the operation, she complained of pain in the wound, extending into the head; but there was no acceleration of pulse—no nervous symptom. In the evening, however, the pulse denoted a febrile accession.

Venesection to ten ounces procured her repose: and next morning she was free from fever, and had nothing to complain of except the inconvenience of her drink getting into her nostrils, notwithstanding the precaution we took of giving her all fluids out of a spouted cup. At eleven o'clock, same night, she suddenly started delirious from her sleep, and got up to run away: her eyes were motionless and blood-shot—her face flushed. Ordered *some drops of liquid laudanum*. When she came to herself in the course of an hour, she gave me to understand that she was troubled with the smell of the bandage: I removed it to satisfy her. After this she slept quietly till next day. On the 13th, in the morning, she was without fever—without pain—she was even in excellent spirits: but as the bowels seemed to be a little out of order, I ordered her *an ounce of cream of tartar*, which had the desired effect. The eschars from the cauterization yielding a thin, fetid discharge, I employed frequent injections of warm water in the nasal passages. In the evening some febrile symptoms were dissipated by a smart sweat. 14th, Dressed again. 15th, The patient in such good spirits, and so disposed to laughter, that it seemed better not to remove the needles, though the cicatrix was united. 16th, The needles removed, and simple sticking plaster left on. *A lavement*; which removed a slight pain of the head. On the 20th, some portions of bone, necrosed by the cautery, came away; and in their place were seen healthy granulations. By the 30th, the communication between the mouth and nostrils no longer existed.

"May 12th.—It was thought necessary to extract some little splinters of the palatine apophysis, which retarded

complete cicatrization. The cicatrix now become solid, whitish, not painful to the touch, and altogether of a very favourable description. The face is less disfigured than it was by the tumor: the nose has resumed its natural position; the nostrils are unembarrassed, and nothing is very remarkable in the young woman's countenance except the scar, and the depression of the cheek and lip: the lip is by no means destitute of motion, though it is certainly not unimpeded. The articulation is but little affected; mastication is performed pretty well with the molars alone. The patient, in fine, has recovered her flesh and complexion; and all her functions proceed regularly, as in a state of good health."—*Gazette des Hôpitaux*.

MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY.

Cases treated by Mr. Hamilton, under the superintendence of Dr. Graves.

LUPUS.

Beneficial Effects of Nitrate of Silver.

JAMES LOGAN, *ætat* 27, a boatman, taken into the hospital December 14th, 1850. Had a sore nearly the size of the palm of the hand on the anterior part of the left shoulder, its lower margin touching the angle of the acromion. The superior half of this sore is covered with flat scaly scabs of a dirty yellow colour; the surface of the inferior half is of a bright red, minutely granulated, uneven, and smeared with a tenacious yellow pus; the margin of this part is well defined. The border of the sore is not red or tumid, with the exception of the internal, which is slightly red and scaly, having apparently been formerly occupied with the disease. There are also a few scabs and small irregular ulcers on those parts of the arm-pit, and inside of the arm, usually in contact—also lower down on the inside of the arm; and here there is a depressed and contracted scar. That part of the arm-pit, too, over which, from its position, the discharge from the sore on the shoulder must necessarily pass, is red and swollen, and presents the appearance of a fissure with exudation. None of the parts are painful unless when touched. He has no other eruption on his body.

The following is his history:—Three years since he was twice salivated for primary and secondary symptoms. He continued without any symptom of disease till a year and a half ago, when he first perceived on the inside of his left arm a small kernel, moveable under the skin; it was at first a little itchy but not painful, and the skin of the part a natural colour. It at length became painful and red

and six months after its first appearance suppurated and broke, leaving an ulcer, at one time presenting the appearance of the inferior half of the sore on shoulder, at another scabbed over. About three months after, the same process took place on the fore part of the shoulder, the kernel only being larger, and the ulcer spreading in all directions, from the centre to the circumference. Subsequently the same took place under the arm-pit.

He also complains of stiffness of the muscles of the thigh and leg, and pain in the small of his back and knee-joint, with a sensation of chilliness; this only takes place when he is at rest, leaving him when he is at work, or warm. Bowels regular; appetite good; tongue rather white; pulse regular. Sleeps well, but generally sweats at night.

To take Liquor Arsenicalis, *gt. ii. ter in die* Hir. xx. circa ulcus, et applic. cataplasma dauci.

18th.—The greater part of the ulcer is cicatrized; the cicatrized part being of a reddish purple colour; here and there a pale flabby granulated spot, raised above the level of the skin, and light-coloured tenacious scabs, and scanty pus; the border uninfamed. He says the sore has been constantly healing and breaking out again in the present manner.

The sores to be touched with Nit. Argent. et sumat. Liquor. Arsenicalis, *gt. iv. ter in die*.

As the other reports of this case are merely long descriptions of the different appearances which the sore presented under the treatment employed, it may be necessary merely to add that the solut. arsen. was omitted, and local applications, leeches, poultices, and nit. argent. only employed. Under these the sore was healed, with the exception of three small ulcerated spots, when the man was dismissed for ill conduct.

ANASARCA AND ASCITES.—Cure.

Peter Dixon, nine years old, received into the hospital December 1st, 1830. Has anasarca of the whole body, with the exception of the hands and arms; also ascites, the belly being greatly distended with fluid. Round the umbilicus there is a circle of inflammation like psoriasis.

He was suckled by his mother while she was labouring under venereal, and affected with mercury; and at nine months old had the measles, since which time he has always been unhealthy, his bowels being generally freer than natural. Three weeks since his ankles began to swell, and subsequently the other parts at present engaged; at one time in a much greater degree than at present. At the same time he had griping and purging, and, according to his own account, passed blood by stool, with pain in the left side.

At present he goes to stool twice or three times in the day, with griping and passing of wind. Skin hot and dry; pulse quick; tongue clean; appetite good; sleeps well. Is troubled with slight cough, without expectoration. On applying the stethoscope, the respiration is superiorly puerile—feeble inferiorly; shrill resonance of the voice every where. From the state of the abdomen, no examination of the viscera could be made.

2d.—Hir. vi. ano.

5th.—The belly appears less distended; cough troublesome.

Vesicat. pectori. et Hir. vi. ano.

6th.—Belly is becoming soft and flaccid, and the liver can plainly be felt considerably enlarged, and slightly tender.

Nul Med.

7th.—Hyd. cum cretâ, *gr. iv.*

Rhei, *gr. i. ter in die*.

10th.—Cough more severe; swelling less; has four stools in the day, which present a deficiency of bile. Pulse 118; tongue red; sweats at night, particularly over the head; liver tender.

Contin. Med. Hir. vj. ano.

11th.—Contin. Med.

12th.—Olei Ricini, 3vi.

13th.—The castor oil sickened him; went twice to stool without griping. The swelling of belly may be said to be completely gone, and his face is no longer œdematous, but the expression improved; still tenderness in liver; some cough; sweated about the head and face; pulse very quick; losing appetite.

He had six leeches to the anus, and rubbed in for two days mercurial ointment.

18th.—Belly has again gradually returned to near its former size; sleeps well, but continues to sweat at night; pulse quick; has cough; appetite good; bowels in the same state.

21st.—The abdomen is still swollen, but not near so much as when he came in. No anasarca. Liver still felt enlarged and tender, and he goes four times to stool in the day. Sleep and appetite good, and countenance greatly improved. Pulse small, but not quicker than natural. In this state he was dismissed.

OBSTINATE CASE OF JAUNDICE.

Michael Graydon, an emaciated tailor, ætat. 29, taken into hospital Nov. 17, 1830. The skin over the whole of his body is of a deep dusky yellow colour; the conjunctiva of a bright yellow. States that seven months ago, before going to work in the morning, he felt some degree of pain in the lower part of the abdomen: it gradually increased in severity till five o'clock in the evening, when it obliged him to leave his work, and he walked home with his body bent nearly double, from the severity of the pain. The belly was tympanitic; and when he went to stool, he

passed nothing but wind. He took a dose of castor oil, which relieved him; but his bowels became irregular, and towards the end of the week, a diarrhoea of watery clay-coloured stools came on, and his skin turned yellow. He continued in this state, with indigestion, flatulence, and loss of appetite, &c. till a month ago, when the diarrhoea diminished, and he only passed two stools in the day, more solid, but clay-coloured, and has continued in the same condition up to the present time. His belly is somewhat swollen and soft. The liver can be felt enlarged, but is not hard or tuberculous. The sound on percussion is dull under a considerable portion of right submammary region; respiration natural; no cough; no pain; appetite middling; pulse soft and small; tongue foul; occasionally troubled with an itching of the skin; urine like porter. Also the inside of the foot, near the great toe joint, is red, painful, and swollen, with a faint sense of fluctuation. This began about six weeks ago, with a painful feeling, like cramp: it gradually became more painful, particularly at night, and swollen at first, without redness: the pain at last was so severe as to prevent him from walking.

18th.—He was ordered

Infus. Calumbæ ʒij.

Spirit. Ætheris Nit. ʒj.

Subcarb. Potass ʒj. bis in die.

Pil. Aloet. gr. vi. nocte, et Hir. vj. ano.

20th.—Feels better; toe painful, and fluctuation evident.

Hir. vj. ano, et Rep. Med.

21st.—His stool was examined and found totally deficient in bile, being of a light clay-colour, almost white.

Pil. Hyd. gr. v. cum Pil. Aloet. gr. vj. nocte sumendæ, et Hirud. vj. ano. The abscess near the toe was opened.

24th.—As the liver was discovered to be much larger than at first described, filling up the right hypochondrium and umbilical regions, and his present plan of treatment has had very little effect on the disease, he is ordered—

Pil. Hyd. gr. iv. Cal. gr. j. Aloes, gr. ij. ter in die. Hirud. vi. ano. Rep. Alia.

30th.—Salivated. Urine still of a deep brown colour, though clearer than when he entered; stools darker

Rep. Med.

Dec. 1st.—Mouth very sore; cheeks considerably swollen.

Omit. Med.

11th.—Dr. Graves remarked this day that he thought the man's skin was not of so deep a yellow; and the stools, after being washed with water, were of a light brown, shewing the reappearance of some bile in them. He continues salivated; in other respects he has no complaint.

12th.—It being wished again to examine the stools, he was ordered—

Pil. Aloes, gr. x. And his foot being painful, Hirud. vi. pedi.

21st.—A chronic abscess discovered on his forehead, caused by the pressure of the rim of his hat: it is painful.

Ordered a Blister.

22d.—The blister relieved the shooting pain he previously felt in the abscess.

25th.—He was put on the following medicine—

Supertart. Potassæ, ʒss.

Pulv. Aromat. gr. xxx.

Syrup Zingib. q. s.

M. Consumatur in die.

29th.—Stools still untinted with bile, but the yellowness of skin considerably less: appetite and sleep good; bowels regular; urine clearer, and not so dark; pulse 64, soft and full; the pain in toe, and abscess of forehead, much less severe. Has been, and is to continue, taking the Supertart. Potass.

Jan. 6th.—Has been continuing the use of the Supertart. Potass; the colour of the skin appears much less yellow, but there is no appearance of bile in the stools. He complains of pain on pressure of the tuberosity of the ischium: this had existed a long time, and arose from his sitting for several hours on a hard and jolting car.

7th.—The use of the Supertartarate of Potash was omitted, and he was ordered—

Nitro-Muriatic Lotions, and Decoct. Sarsap. Comp. ʒij. Acidi. Nitro-Muriatici, ʒij. Consumatur in die.

8th.—No complaint but the yellowness of skin, with the exception of the abscess on the forehead, and the sore near the toe; the latter of which was freely opened, and the bone found soft and diseased.

Rep. Med. The Nitro-Muriat. Acid in the baths changed for Chloruret of Lime.

He continued on this plan of treatment with advantage as far as his general health was concerned; but little alteration occurred in the jaundice. An occasional blister was applied to the forehead, and the toe dressed with red precipitate.

24th.—For the last few days the colour of the skin has been gradually becoming deeper, and is now fully as dark as when he entered the hospital; the size of the liver is found very little altered; the abscess on the forehead is somewhat larger, but the toe so much improved that he is now able to walk; general health good; bowels regular; pulse 72, full.

Rep. Med. et Adde Acid. Sulph. balneis*.

* We hope to give the sequel of this case in another Number.

THE LONDON MEDICAL GAZETTE,

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OF
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SATURDAY, JULY 23, 1831.

ILLUSTRATIONS
OF
DR. CORRIGAN'S THEORY
OF THE
MOTIONS AND SOUNDS OF THE
HEART.

By DR. HAYCRAFT.

PART IV.

[Concluded from page 457.]

Double Bruissement of the Heart.

THAT both sounds of the heart are occasioned by the sudden check given to the motion of the blood within the ventricles at the moment of the extreme diastole, and that of the extreme systole, may, I think, be made out in the following manner, which is a continuation of the case of John Moon. Disease has existed several years. Sounds of the right side of the ventricle natural, though not very loud. Impulse at the chest very slight. The proper sounds of the left side are lost: instead of the usual sounds, are perceived two bellows-sounds, whose tones differ from those of the proper sounds of the right ventricle: one appears aortic, as it is heard more plainly in the upper part of the chest, over the subclavian arteries, and can be plainly heard down the brachial, as far as the radial arteries, on both sides: the other I will call the cardiac, as it is heard loudest in the region of the heart, and is hardly to be distinguished above the clavicles. Both the bruissements are diffused over the chest. The following is the order of succession. The aortic bellows-sound commences with

the first proper sound of the right side, and ends abruptly in the pulse at the wrist. Exactly synchronous with this bellows-sound, there is a visible pulsation of the dilated subclavians. The cardiac, or second bellows-sound, begins immediately *after* the second sound of the right side, and is much longer than the first bruissement; it continues nearly till the first sound.

What I would now remark upon is, the total absence of the proper sounds of the left side of the heart. The first proper sound being absent, we suppose that there is a narrowing of the left auricular ventricular opening, whereby the free passage of blood necessary to the first sound is prevented: this is rendered more probable by the cardiac bellows-sound, which we believe occurred during the dilatation of the ventricle, because it took place immediately after the second sound of the heart. This bellows sound, then, may be occasioned by the same contraction or obstruction of the passage. Thus two symptoms being attributable to one cause, renders that cause probable. Allowing then that cause, it will be easily perceived that the blood not rushing into the ventricle with sufficient freedom, the first sound should be lost.

Again, we will inquire how the second proper sound was lost. In the case before us, it was remarked that the innominate, subclavian, brachial, and even the radial arteries, pulsated to the eye: they appeared very much dilated, and so very compressible that a slight pressure on them stopped their circulation; even a silk handkerchief, tied round the arm so slightly as not to fill the veins, stopped the pulsation of the radial artery. These arteries appear, then, to

have more of the character of veins; and we may suppose that the aorta, and the whole arterial system, partake of the same character. What effect would this state of the arterial system produce on the second sound? It would be, that the termination of the ventricular systole would not be abrupt and sudden, because the easily dilating coats of the arteries would not yield that firm support which is necessary to the abrupt termination of the systole, and this abrupt termination we suppose to be necessary to the second sound.

Excrecences on the Aortic and Mitral Valves.

I have, from the numerous and excellent cases of Dr. Elliotson, selected one, because it presents more difficulty than usual in reconciling its explanation to what we have just said relative to the absence of the first proper sound of the heart being attributable to a narrowing of the auriculo-ventricular passage. In the case to be referred to, the first sound was natural, although there was a bruissement, which we should attribute to a narrowed passage.

The symptoms were, first, the stroke of the heart; "pulse at the same moment," sometimes after a most minute interval possible; then the pulse, which "all but accompanied" the impulse. "After the pulse was clearly over" the bruissement, "a cooing sound, and this was followed by a dead pause." The sound was loudest under the left cartilages of the ribs; "the pulse remarkably full, not such a pulse as you have when the blood is so obstructed in its course into the aorta as to give a very loud sound." Impulse very great, heaving, "raising the stethoscope and the head; first sound natural."

Diagnosis.—"Impediment in the heart, in the left side . . . not from obstruction at the mouth of the aorta. Hypertrophy with dilatation." This diagnosis was amply verified by the dissection.

Section.—Most extensive excrecences upon the aortic and mitral valves; "upon that portion of the outside of the mitral valve which is nearest to the semilunar valves of the aorta—we might say upon part of the root of the mitral valve—one of these excrecences, of an extraordinary length, so long as to reach more than half-way towards the apex of the heart. Some of the ex-

crecences upon all the aortic valves, but the great mass of them is upon the external part of the ring of the mitral valve, nearest to the valves of the aorta. The excrecences, when recent, full, solid, and plump; at their base they presented a cauliflower appearance, from which a few very large shoots extended. *A considerable mass pressing externally on the mitral valve. Apparently no obstruction in the mitral valve itself, the opening being as large as natural.* This mass of excrecences must clearly have pressed very considerably down upon the mitral valve, and narrowed the auriculo-ventricular opening. Aorta enlarged; valve enlarged, dilated."

The difficulty of reconciling this case with our theory is, to account for the first sound being natural while there was an obstructed auriculo-ventricular passage, arising from the pressure of the excrecences against the mitral valve; for our theory requires a free passage for the production of the natural sound.

We will grant that the pressure of the excrecences on the valves produced such an obstruction as caused the cooing sound; but in viewing the case narrowly, we shall perceive that the pressure of these excrecences would not produce a constant and unvarying impediment to their action, such as would be caused by an organic change either of the valves or passage. For example, these excrecences would press more upon the valves at the time of the extreme systole of the ventricle; but during the diastole, the ventricle having its larger capacity, and the excrecences having greater room, would not press upon the valve; therefore, at that moment, the auriculo-ventricular passage, being otherwise healthy, would have its proper dimensions. Now it is at this very moment (the extreme diastole) that we believe that the said first sound takes place. Also, if we examine the description of the time of the cooing sound, we shall find that it will support what we have just stated. First, the cooing sound began "after the pulse was clearly over," and therefore, as we suppose, during the diastole of the ventricle, which we believe to occur between the second and first sounds; secondly, there was "a dead pause" between the termination of the cooing sound and the first sound; therefore, as

the cooing sound did not continue till the time of the first sound, and as we suppose that the heart continues dilating till the said first sound, it would appear that the obstruction, which we allow to have occasioned the cooing noise, is removed, which is, in fact, at the very time that we have shewn that the excrescences (the cause of the obstruction) would not press upon the mitral valves, on account of the increased size of the ventral cavity. In this state of things, then, the auriculo-ventricular passage being unobstructed, we should have a natural first sound, which was the case.

I have in vain sought for cases in which a considerable structural narrowing of the mitral passage, such as would occasion a bellows sound, was accompanied by a completely natural first sound of the left side. In those cases I have seen, where there was a bellows sound after the pulse, not arising from regurgitation from the aorta, the first sound is obscured. Dr. Elliotson thinks he has heard this bellows sound, arising from disease of the mitral valves, followed by the natural first sound of the heart, and has kindly promised me that, should he meet with such a case, he will give me facilities for seeing it. One such a case in which, on dissection, there should be found a permanent structural narrowing, or obstruction of the mitral passage, with a natural first sound of the left side of the heart, would be, I think, fatal to our theory. I could cite a number of instances, some of which I have already quoted, in which most decided narrowing of the auriculo-ventricular passage was found on dissection, where a suppressed, or morbid first sound co-existed; these instances, as far as they go, should be considered as highly confirmatory of our doctrines, because the theory itself supposes a free state of the passage to be essential to a natural first sound; while the old theory cannot shew cause why any such narrowing of the passage should make an alteration of that sound.

Rupture of Aortic Valve.

I will again take the liberty of referring to another very interesting case, related by Dr. Elliotson in his clinical lecture (Med. Gaz. March 19, 1831), in which I will pursue the same train of reasoning. Dr. E. states, "I did not see the individual to which this (the

heart) belonged during life, but I am told there was a bellows sound heard *after* the pulse; that there was a *strong impulse of the heart on the left side* at the moment of the pulse; but that after the stroke and the pulse a bellows sound was heard, and then a pause took place."

"Now it is supposed by Laennec, that when there is a constriction at one of the auriculo-ventricular openings, the bellows sound is heard after the pulse—that the auricles contract after the ventricles, and after the pulse has taken place; and that if the blood that is passing from the auricles into the ventricles finds a difficulty, it issues into the ventricles with a bellows sound. There can be no doubt, however correct this may be, that a bellows sound may be heard after the pulse—after the contraction of the ventricles from another cause—that is, from the blood regurgitating (from the aorta) into the ventricle."

Now it would appear from this quotation, that the old theory would furnish no data by which the bellows sound could be assigned to either an imperfection of the aortic valves, or constriction of the auriculo-ventricular opening, because both of these would equally account for the bellows sound.

We should have had no hesitation, however, in entering as a part of the diagnosis, "disease of aortic valves permitting regurgitation," because it appears from the history, that "there was a strong impulse of the heart on the left side at the moment of the pulse." This fact should have decided the case. We suppose that the impulse of the heart is occasioned by the rush of blood into the ventricles*, therefore a strong and *momentary* impulse, as it is represented to be (*i. e.* a sudden shock) of the *left side of the heart*, cannot, consistently with our doctrines, take place with a constricted auriculo-ventricular opening of the mitral valve. Then, as we know no other structural cause that

* We must distinguish between that sudden shock or stroke of the heart which subsists in the healthy state of the organ, from the slower and forcible heaving (without noise) which is caused by hypertrophy of the ventricles, and which I have called propulsion. This propulsion would appear to arise from the muscular diastolic action of both ventricles increased by disease. Laennec seems to hint at this distinction in his first and second chapter on the heart, where he uses the term pulsation of the heart, as distinguished from impulse.

would produce a bellows sound after the pulse than such a state of the aortic valves as would permit regurgitation, we should have pronounced the above diagnosis. On dissection, one of the semi-lunar valves of the aorta was found shortened, and incapable of its function, and one-half of it lacerated, so that "the blood must have rushed into the ventricle at the moment of its dilatation." See Dr. Hodgson's Cases of Retroversion of the Valves of the Aorta, read before the Hunterian Society (Med. Gaz. vol. iii. p. 663).

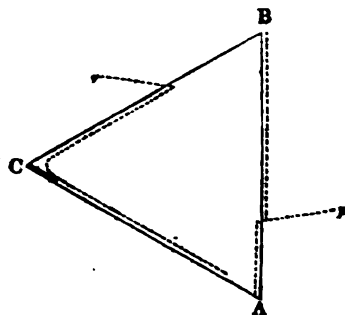
On the Rhythm of the Actions of the Heart.

There has been some misapprehension of our doctrine relative to the bellows sound after the pulse, or what is called the *second* (bellows) sound. This sound has undoubtedly been found, on dissection, to be connected with a narrowed mitral passage, and to occur during the diastole of the ventricle; yet our theory supposes that the *first* sound of the heart is occasioned by the diastole. It should, however, be recollected, that we suppose the first sound to happen at the *extreme* diastole; that the diastole then *precedes* the first sound, and therefore a bruissement caused during the diastole should *precede* the time of the first sound, and should not accompany it—i. e. it should occur between the pulse and the first sound, or, as it is commonly said, it follows the pulse. According to our doctrines then, the diastole of the ventricle, although it causes the *first* sound in the healthy heart, causes the *second* bellows sound (that following the pulse) in the diseased heart. For the purpose of more clearly understanding what I have just said (and I invite my reader's more particular attention to it), I will make some remarks on the bellows sounds of the heart.

When the second (Laennec's auricular) sound is converted into a bellows sound, it does not take place at the same time as a natural second sound. In my case of John Moon, the second bellows sound of the left side began immediately *after* the second sound of the right side of the heart, and was much prolonged, as it extended to nearly the first sound of the same side. This fact is confirmed in Laennec's 46th case, in which there was "contraction of the auricle extremely prolonged, accompanied with a dull but strong sound, ex-

actly like that produced by a file on wood. . . . Succeeding this, a louder sound and a shock, synchronous with the pulse (our first sound), &c. . . . Under the lower end of the sternum the contractions of the heart are quite different. Here the impulse of the right ventricle is very great, its contraction being of the ordinary duration—viz. twice as long as that of the auricle." From both these descriptions it would appear that a morbid bruissement of the *second* sound happens *between* the times of the second and first natural sounds of the heart, and exactly when our theory supposes the *diastole* to take place. From the evidence of dissections it is universally believed that the bruissement attending mitral valve disease often precedes the first sound, follows the pulse, and occurs during the expansion of the ventricle—i. e. it occurs just at the time that our explanation assigns to it.

In the same way the first sound, when a bellows sound, occurs, or at least is prolonged, after the time of the healthy first sound—i. e. it occurs between the first and second sounds (it most commonly ends in the pulse), of which I could bring abundant proof. Therefore, as it exists, or is prolonged, after the first sound, and consequently after the termination of the ventricular expansion, the theory would admit it to be caused by the ventricular contraction. Thus although the ventricular contraction, according to our doctrines, causes the *second natural sound* of the heart, it may also cause the *first bellows sound*, when it exists; although I believe, that when a first bellows sound arises from aortic contraction, it is commonly occasioned in the manner I have formerly attempted to explain. I will endeavour to make this matter clearer by the following diagram:—



A, B, C, is an equilateral triangle, of which A represents the impulse at the chest, which, for the sake of simplicity, we will consider as a point of time. B represents the second sound, which we will also consider as a point of time. The side A, B, will represent the time between the impulse and the second sound; and the sum of the sides B C, and A C, will represent the time between the second sound and the impulse. This will be found true by experiment; for if we apply the ear to the chest in the healthy subject, and count 1, 2, 3, 1, 2, 3, &c. at equal intervals, and so that 1 shall coincide with the impulse, and 2 with the second sound, 3 will fall in the interval between the second sound and the impulse; and 1 will again coincide with the impulse.

We will use this diagram first to illustrate our theory as applied to the healthy heart. A (the impulse) is also the time of the extreme diastole of the ventricle, and contraction of the auricle; *p* is the time of the pulse, which falls in somewhere between A and B; and from A to *p* is the interval (about which so much has been said) between the impulse and pulse. From *p* to B is the time of the contraction of the ventricle; from B to *r* is the time of repose, which, if we credit Laennec, happens after the second sound; this point would lie somewhere between B and C. Then from *r* to C, and from C to A, the time is represented which belongs to the ventricular expansion.

Of the length of the healthy sounds we take no account, as they, I think, cannot be measured; and also as they differ in every individual.

But if a bellows sound takes place in consequence of disease, their times are entirely different: for example, a bellows sound occurring after the pulse, belonging to mitral valve disease, and attending the diastole of the ventricle, will begin from *r*, and will, as represented by the dotted line, be sometimes prolonged (as I have shewn from Laennec) nearly as far as the first sound, which is coincident with A, the impulse. Now this bellows sound is called a second sound, merely because it follows the pulse; yet the reader will perceive, that although it happens after the pulse, as does also the natural second sound (B), yet its times are different; for B occurs at the *extreme ventricular systole*, but the dotted line, which repre-

sents the bellows (second) sound, falls in *during* the *diastole* of the ventricle.

In the same way the dotted line, from A to *p*, represents a bellows first sound, when it happens between the impulse and the pulse. It is called a first sound because it happens with or before the pulse, yet it will be perceived not to have the exact time of the impulse and first sound. We should have expected that in disease of the aorta, narrowing its orifice (to which this bellows sound ending in the pulse belongs), that the bruissement would have continued during the whole of the ventricular contraction; but, on the contrary, it ceases at the moment of the pulse; yet the pulse is held to denote the beginning of the contraction. Why it should then cease I can give no very satisfactory explanation*.

Again, in the case of Christian Anderson, quoted in the second part of this essay, it appeared that the *first* (a sawing sound), connected with an extremely narrowed mitral opening, was, if the description be correct, prolonged till the second sound; and therefore, according to our theory, it *accompanied* the whole of the contraction of the ventricle; for it is stated, that "the flap of the auricle (second sound) was scarcely audible *at the conclusion of the ventricular* (sawing) sound." If this sawing sound, then, occurred *during* the contraction of the ventricle, as the author of the case believes (and I suspect he is right), producing regurgitation through the narrowed auriculo-ventricular opening, it would appear that, as it was prolonged to the second sound, the ventricle continues contracting till the second sound, as is represented in the diagram. Such a bruissement then, would be represented by the dotted line from *p* to B. Now this would still be called a first sound, because it precedes the second sound; yet the reader will see that it entirely differs in its time from the healthy first sound, which coincides with (A) the impulse.

The distinction between the times of the morbid and healthy sounds of the heart is important to our theory; for there are cases in which, if we allot the

* We may, however, suppose that as a bruissement is only heard in aortic disease, when it is somewhat dilated, and its coats are during the diastole of the heart somewhat flaccid, the systole of the ventricle, by suddenly distending the coats and rendering them more tense, will instantly stop the morbid sound.

first *morbid* sound to the diastole, and a second *morbid* sound to the systole of the ventricle, we should be at a loss to explain the symptoms. In these cases we must, if one side of the heart has its sounds natural, compare the *morbid* sounds with the natural ones, so as to make the latter the standards of comparison.

Perhaps the reader may think that this addition of the distinction in the times of *morbid* sounds, makes our theory too complicated; yet it appears to me, from the nature of things, that a theory that would explain all the phenomena of the heart's actions in health and disease, and that would at the same time be very simple, is an impossibility. No object of science, even if taken from inanimate being, is so simple as to be explicable by a theory devoid of complexity: take, for instance, the theory of the tides: although in their explanation, the grand and simple laws of nature are brought to bear, yet there are so many retarding forces arising from the laws of moving fluids, and the form of the earth, that a complete theory, explaining every phenomena, is still wanting. In the question of the heart, the very fact, that for so many centuries the use of the heart was unknown, and that even now the order of its action is a subject of dispute, is a full proof that its actions are complex, and that a theory of the heart, extremely simple, must be either incomplete or false.

This paper has been carried to such a length that I shall not take more of the reader's time in supporting, as I had intended, those opinions in which I differ from Dr. Corrigan; the most material of which is, that the auricular systole, although a main, is not the only cause of the rush of blood into the ventricle. That the ventricles are not passive in its dilatations, may be presumed from the united testimony of Haller, Bichat, Pechlin, Barry, Laennec, Dr. Wilson Phillip, &c. I have attempted in dissecting the heart, by unravelling its fibres after long continued action, to discover fibres which, from their arrangement, might act as antagonists to those which cause its contraction, but in vain. I am therefore inclined to coincide with Bichat, in thinking that the heart, as well as some other muscular structures, has a power of *forcibly* lengthening its fibres as well as of contracting them: however this may be, it

is certain that the ventricles are capable of being stimulated into a forcible diastolic action, by which its dimensions become greater than in a state of rest, and this without any corresponding contraction of the auricle.

I have also left almost unnoticed the doctrines of Dr. Barry relative to the pressure of the atmosphere on the action of the heart, &c. as they are not very essential to our theory, and as because the most important of them enter into the theory of Dr. Carson, to which we have referred.

I am pleased to find in Burserius's systematic and very excellent account of the various kinds of palpitation of the heart, a complete corroboration of most of the varieties I have given, in which he proposes different modes of treatment confirmatory of the practical remarks which I have made in the second part of this essay.

If the discussion now before the medical public has no other effect, it will, by exciting more attention to the diseases of the heart, be of some service to medicine. It is not to be expected in the nature of things, that the questions we have mooted shall be very shortly settled. Our knowledge of the heart is still very imperfect: yet fresh observations and facts arising from this discussion will, I trust, in the course of time, put these questions at rest.

I will also add, that in the various cases I have cited, I have in general preferred those which have been recorded by gentlemen adverse to our doctrines. I might, perhaps, have selected others more strikingly illustrative of our views, but I have chosen those which, from their *apparent* bearing, seemed to favour the doctrines which we consider to be erroneous: with what degree of success, it is left to the attentive reader to determine.

That I have erred in some points is more than probable, and considering that we have been exploring, as it were, a new country, it might be expected that we should now and then lose the way for a little. I suspect especially that I was mistaken when, in the second part of this paper, I gave too little credit to the supposition of regurgitation into the auricle from disease of mitral valve with a bruissement of the first sound. I have lately met with several cases in which this should have happened. I find, however, that I was cor-

rect in supposing in this case, that a structural narrowing that would produce a bruissement of the first sound, should produce a bruissement of the second sound also. Mr. Spittal's case (38) is an example of this sort, where both sounds had the character of "bruit de soufflet," the auriculo ventricular passage admitting only a little more than one finger, and the aortic valves being healthy; though I do not affirm that this is constantly the case.

REMARKS ON VACCINATION.

By W. Howison, M.D. F.R.C.S.E.

Vaccinator to the Royal Dispensary, Edinburgh.

HAVING been employed during the greater part of my professional life in the performance of vaccination, and having paid particular attention to the various circumstances affecting the cow-pox vesicle during its progress, and its efficacy as a security against small-pox, I consider myself entitled to make the following observations and remarks upon the subject.

1. The period of life most suitable for vaccination appears to me to be from one month after birth to one year old. When performed during that period the vesicle goes through its progress in a more complete and perfect manner, and contains within its cellular structure a greater quantity of virus, of the purest and most efficient quality, than it does when performed at any other period of life.

From my experience, I lay it down as an axiom that the earlier in life vaccination is performed the more complete, efficient, and beautiful (if an enthusiast be allowed the expression) in its appearance, will be the future vesicle throughout its various stages; and that the later in life, the reverse of the position holds good. Indeed I always feel uncomfortable in vaccinating individuals (such as recruits who are sent to the Royal Dispensary) and others, at an advanced age. The vesicle seldom gives satisfaction, and its security at an after period, as a preventive against small-pox, is at the best doubtful.

2. A healthy infant, plump, and well

filled up in flesh—one brought up in pure air, cleanly, and of healthy parents—invariably produces a more beautiful and effective vesicle in all its stages than the emaciated, puny infant of large cities; and in circumstances the reverse of those above mentioned.

3. In introducing the vaccine virus into the arm of the infant, I invariably make use of the round-pointed vaccination lancet contained in the cases of inoculating instruments sold in the cutlers' shops, and never use the common bleeding lancet. The former scratches the cutis very gently, steadily, and to a considerable extent, introducing a large quantity of virus into the wound, which makes the future vesicle of a long shape and well filled with lymph—a circumstance of considerable importance, when many infants are afterwards to be vaccinated from it. It also makes a practitioner careful and interested in the future success of his operation. The common sharp-pointed bleeding lancet, on the contrary, with the utmost care, and in the most experienced hands, gives unnecessary pain, pricks deeply, inserts only a small quantity of virus, produces effusion of blood, washing out the lymph, rendering the formation of the future vesicle doubtful—producing one small, of a round form, and containing too small a quantity of the vaccine fluid for future vaccination.

4. Vaccination which is performed by introducing the vaccine virus in its most recent state, flowing from the vesicle of an infant, at once into the arm of another, is always preferable to the inoculation performed from glass, or from virus preserved in any other way, by crust, &c.; and I feel convinced that *the perfection and security of the future vesicle will be in proportion to the freshness of the vaccine virus.* I would recommend the practitioner, in all cases, when it can be done, to send the infant to be vaccinated to the infant from whose arm the virus is to be taken, and to attend and perform the operation himself. Besides, there is a satisfaction to all concerned in seeing the infant, and in being assured of the certainty of the vaccination.

5. Vaccination ought, in every case, to be performed in two places, and at the same time, in every infant. Some practitioners prefer to insert the virus into one place, in each arm; others to insert it into two places in the same

arm. When the latter method is followed, the inoculations ought to be so far from each other that the inflamed areola, at an after period, surrounding each vesicle, may not run together. *If vaccination be performed in one place only in an infant, no virus ought at any after period to be taken from the vesicle,* otherwise too little will remain to be absorbed into the constitution; and its future efficacy, as a preventive of small-pox, may be uncertain. Besides, were it punctured, its future progress might be interrupted, or totally destroyed.

6. From long experience, I am inclined to think that *temperature, or weather, affects, to a considerable extent, the perfection of the vaccine vesicle.* I have always observed that the vesicle is more complete, and more certain of going through its various stages, during the summer months, and particularly during warm seasons, when it is turgid with pellucid virus, than during the winter, when the weather is cold and tempestuous; at which period the vesicle is small, imperfect, and flaccid.

7. It is unnecessary, generally speaking, in almost any instance, to administer purgatives, or any other medicines, to the infant during the progress or after-treatment of vaccination. In the Royal Dispensary, some time ago, it used to be an invariable rule to administer a powder of rhubarb and magnesia to every infant after vaccination. For many years past this has been entirely omitted.

8. *The proper period for inoculation from the vaccine vesicle, when it has pursued its regular course, is undoubtedly the eighth day.* At that time its cells are fully distended with transparent virus, and it is in its greatest state of perfection. If vaccination is performed from the vesicle upon the seventh day, it will be small in size, contain a minute quantity of virus, and its future progress will be retarded or totally destroyed. If the vesicle is allowed to advance in its progress until the ninth day, its virus will then be found to be opaque, the watery part being absorbed, and vaccination performed from it will probably fail.

9. A larger number than five children ought never to be vaccinated from the same vesicle, however large it may be, or however much virus may be contained

in its cells. As the vaccination in those last operated on will undoubtedly fail, perhaps from the virus becoming weaker in its nature, I am of opinion that, in such a case, the vesicles of the child first inoculated will be more perfect in every respect than those of the second; and so on, until the vaccination fails entirely.

10. *In taking virus from the infant, for carrying on future vaccination, one only of the two vesicles should be punctured or emptied of its contents:* the other ought, in every case, to be allowed to remain uninjured, that its virus may be absorbed into the constitution, rendering the little patient for life afterwards proof against small-pox infection. If the virus be completely withdrawn from both vesicles, and its consequent absorption into the animal economy be prevented, I feel doubtful whether or not, at an after period, it will afford sufficient protection against small-pox contagion: at least, when the entire virus of one vesicle is allowed to pass into the constitution, as now recommended, the result must be far more satisfactory.

11. When virus is taken from the vesicle, and preserved upon squares of glass for future vaccination, it ought always to be deposited in a mass upon the centre of one of the squares, and allowed to stand exposed to the air until it become viscid, or almost dry, previous to covering it with the other plate. If the two plates be brought together when the virus is still fluid, it will be dispersed across the surface of both plates, forced over their edges, and rendered unfit for future vaccination. *The best and most convenient method of preserving vaccine virus for future inoculation, with which the medical world is as yet acquainted, is undoubtedly the stoppered phial, with its stopper possessing a considerable surface, ground opaque, and slightly concave; and of one such every practitioner should be possessed.*

12th. If we take into consideration how often virus is made use of for vaccination, which was not that of cow-pox, in its proper condition; or, never taken from the vaccine vesicle at all—how often such individuals are passed off as vaccinated—we are not to be surprised at the numerous cases brought forward of small-pox occurring after vaccination.

During the months of November, December, and January, of the past winter, whilst the vaccination carried on at the Royal Dispensary was entirely performed by me, I have observed, that the vesicles upon the arms of the children inoculated, with very few exceptions, have not gone through the same regular and complete course, which they were accustomed to do, during the summer months; and which I have always formerly seen them do. They have been small in size, flaccid, their cellular structure imperfectly filled with virus, and in many instances, (I may say always, if punctured upon the seventh day, when virus was unusually difficult to be procured,) they have died away without giving satisfaction, or they have never come forward at all. Vaccination also, performed from these vesicles, was either proved unsuccessful, or as might naturally have been expected, was only produced pocks, more imperfect and unsatisfactory than themselves. During the months above mentioned, I have been frequently obliged to borrow vaccine virus from other sources, to keep up the inoculation at the establishment; in place of having a superabundant and profuse supply at all times, to give to others, as was formerly the case. And, from the numerous applications made to me for a supply of virus, during the above-mentioned interval, by private individuals and by public institutions, both in town and country, I am entitled to conclude, that they must have been in a similar situation themselves.

It is but candid, however, to state, that during the tempestuous weather, which prevails during the winter months, mothers will not bring out their children to a public institution for vaccination, particularly as inoculation is then performed only on two days out of the seven (viz. Wednesdays and Saturdays, at the Royal Dispensary,) and as the virus is only in activity during the eighth day, the supply of fresh virus runs out upon such occasions. This seldom or never happens at any other period of the year; and forms one of the causes injurious to vaccination, during the winter season.

In consequence of what I have now brought forward, in the preceding pages, the following important questions force themselves upon my mind. What has been the cause, or causes, of the falling

off in the progress of the cow-pox vesicle, or of vaccination, during the winter months? Has it been owing to the tempestuous weather and diminished temperature, which prevail during the winter season; and particularly this last year? Has it been owing to the prevalence and severity of the small-pox, at that period uncommonly fatal—and raging round the institution, mitigating or destroying the energy of the cow-pox virus? Has it been owing to the degenerating of the vaccine virus at present in our hands, owing to its long confinement to the human subject: and must we again have recourse to the original supply—the udder of the cow?

Is there any other cause which can be assigned for it, of which I am ignorant, or have omitted to mention? or have these various circumstances, acting together, so far destroyed or diminished its energy? Will vaccination, carried on and passed through in an imperfect and unsatisfactory manner, secure the infant, at all future periods, against the contagion of small-pox? Has this been the principal or only cause, (taking into consideration the many uneducated individuals—nurses, blacksmiths, &c. who perform vaccination, and the inefficient and uncertain state of the virus introduced into the human constitution, under the name of vaccine fluid, by such individuals,) of the comparative disrepute into which vaccination has fallen at the present day?

I may be blamed, and perhaps justly so, for making these remarks at the present moment—for throwing out any idea that may have the slightest tendency to lessen the public opinion of the benefits arising from vaccination. The remarks, however, are intended to be confined to the medical profession. My intention is to strengthen the benefits arising from vaccination—to do away any circumstance that may prove prejudicial to its efficacy, and I hope that my intentions will not be misapprehended. My ideas are, 1st, That it is proper again to have recourse to the original source—the udder of the cow. 2d, That vaccination, conducted under proper management, confined to well-educated medical individuals, and to such only, and carried on at favourable seasons of the year, will flourish and prosper. And, 3dly, that it is, and always has been, under such

circumstances, a security against small-pox, and a modifier, when not had recourse to too late, of its virulent action.

I perform the vaccination duty every three months at the Royal Public Dispensary, alternately with my colleague, Dr. Warden; and the observations above made apply to the vaccine vesicle as it presented itself during the months of November, December, and January, the intensity of winter, and at a period when much tempestuous rainy weather prevailed. I have now resumed the same duty, during the month of May, the first month of summer, during which the weather, although chilly, in consequence of the prevalence of north, easterly, and north-easterly winds, has been clear and dry, and as the temperature increases, I feel happy to say that vaccine vesicles have gradually regained their plump appearance, and now give me perfect satisfaction; the virus contained in their cells being abundant, transparent, and fulfilling every purpose required of it. Am I not, therefore, entitled to conclude, that diminished temperature and tempestuous weather diminish the appearances and properties of the vaccine vesicle? and that increased temperature and dry weather again restore it to its perfect state? In other words, that vaccination succeeds much better, and is more effectual as a preventive against small-pox, when performed during summer than during the winter months. I must also state that, within these few weeks, small-pox has almost ceased to exist in the neighbourhood of our dispensary, and consequently cannot exert its effects in diminishing the efficacy of the vaccine virus. During the month of April, it may be also proper to mention, Dr. Warden received a large supply of vaccinelymph from the London National Vaccine Establishment, and made use of it. Therefore, the vaccination at present going on may be said to have been propagated from a different source from what was in existence during the months of November, December, and January, to which my remarks apply.

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9, Nicolson-Square, Edinburgh,
June 1831.

ON THE EPIDEMIC CATARRH, INFLUENZA,

Which prevailed at Manilla (Island of Luzon) and Vicinity, during the month of January 1830, with the Atmospheric Change some time previous, and during its continuance.

BY GEORGE BENNETT, Esq.

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Introductory Observations.

WHERE a divided opinion exists among the members of the medical profession, whether a disease which prevails through the medium of contagion or the result of atmospherical causes, it is interesting to endeavour to prove that prevalent disease may result from the vicissitudes of the atmosphere, although to casual observers, its character may seem contagious. I am adverse to the theory of contagion, as far as regards the epidemic now under observation. The still more formidable and alarming spasmodic cholera of India. Those who have had frequent opportunities of actually seeing the latter disease as it exists in Asia, and who have not derived their knowledge respecting it from mere theory, will doubtless support my opinion. The prevalence of the influenza at Manilla and vicinity, its prevalence about the same period at China, and in England at the present period, might as readily be attributed to contagion. Previous to the appearance of the epidemic catarrh at Manilla, the weather had been unusually hot and dry for the season of the year, which, combined with a very variable atmosphere during the day and night, was considered by the inhabitants so unusual that the occurrence of a severe hurricane, or earthquake, was predicted. The time during which this epidemic occurred was what is termed the rainy monsoon, but which, as has been before observed, was attended by very dry weather. Persons were seized suddenly while at work, and when remote from contagious causes; some had retired to rest perfectly well, and had been attacked during the night. The disease must be, therefore, assigned to the true exciting cause—the variable state of the atmosphere which existed at Manilla during and previous to the epidemic, and which same variableness has also been remarked in this country. Cunningham remarks, in his “*Ta-*

ars in New South Wales," its existence in that country, and observes, that an epidemic influenza carried off a number of the old Europeans some years ago, and also not a few of the natives, while many of our younger individuals occasionally feel the effects of it to this day. It appeared at the same time, or immediately in the rear, of a northerly wind, the symptoms being violent head-aches, cough, sneezing, and inflamed eyes, with a quick pulse, and their general febrile concomitants. This year (1826) it has again fatally visited the colony."—(Vol. i. page 172.) This may be considered as supporting the opinion of the disease proceeding from a peculiar state of the atmosphere; and if the state and variability of the atmosphere were more studied during the visit of reigning diseases, there would be much light thrown on what is more commonly and very readily assigned to contagion, whereas, in the course of practice, we find the idiosyncrasy of different individuals such, that, during the time that a wind blows from a certain quarter, they feel indisposed, without any other assignable reason; and if wounded, the wound will not heal, from a similar cause;—that others, again, suffer violent head-aches when the atmosphere is charged with electric fluid, and which subside when that peculiar state of weather has passed. Of the disease now under observation, Dr. Good states that it "has always been remarkable in this—that it has been the most widely spreading epidemic known. It has seldom appeared in any one country of Europe without appearing successively in every other part of it; and, in some instances, the infection has passed the Atlantic with little or no remission of its severity, and attacked Americans who had not had the slightest intercourse with Europeans."—"And hence," it is also observed by the same author, that "we are capable of tracing it at sea as well as on land. In the epidemic of 1782, Lord Howe sailed, in the month of May, with a fleet for the Dutch coast, and Admiral Kempenfelt for that of France. The crews of both fleets were well on sailing; but in the same month both were attacked very generally, and the latter was obliged to return home*." And so I was also in-

formed that the ship, *Charles Forbes*, which arrived at Manila, from China, on the 18th of September (1830), had had the crew attacked by the epidemic when the ship was on the passage. I now add a brief topography of Manila and Cavité, where I observed this epidemic prevail, as well as a register of the highest and lowest range of the thermometer previously to and during the occurrence of the epidemic, with also some general remarks.

The city of Manila is situated in latitude 14 deg. 36 min. N.; longitude, 120 deg. 51 min. E.; and is on the west side of the Island of Luzon, on the borders of the river Pasig, which runs into the Bay, having a bar at the entrance, which renders it impassable except at high water, when vessels of three or four hundred tons burthen can enter. The removal of this impediment to its navigation would materially increase the commercial importance of the city. The Bay of Manila is very extensive, being thirty leagues in circumference. Ships anchor in the roads at some distance off the city, excepting during the S. W. or rainy monsoon, when they take refuge in the harbour of Cavité. The city and suburbs are generally healthy, which, from its low situation in the immediate vicinity of land intersected by marshes (which are used, and very productively, as rice plantations), together with numerous canals, into which all refuse is thrown, and supposed to be carried off by the tide; but I have observed, at low water, sufficient remains to cause occasionally a very unpleasant effluvia to arise; these combinations, under a very fervent sun, would cause a stranger to entertain an opinion against its salubrity. The rice plantations about the city and suburbs form a delightful addition to the landscape. The roads to the town in the vicinity are good, and most of them are planted on each side with hedges of waving bamboos, which, towering aloft, unite on each side and produce a delightful shade during the fervent heat of the sun. The country about Manila (as well as indeed the whole island) is very fertile—sugar, indigo, cotton, rice (of which large quantities are exported to China) and tobacco, being produced in abundance, as well as tropical fruits and vegetables. During the Vendevales, or rainy monsoon, catarrhs of a mild character, and diarrhoea mucosa, are frequent; the lat-

* Good's Study of Medicine, vol. ii. p. 583, et sequent. in which may be found much interesting matter on this disease.

ter proves difficult of removal, and will continue in many instances for two or three years, eventually destroying the patient. The last epidemic that occurred similar in character to the present was in the year 1810. The season (1830) in which I made these observations, was marked by uncommon dryness and unusual atmospherical changes; the rain that fell was in very small quantity, and chiefly as passing showers, whereas, at that season of the year, torrents of rain for several successive days without intermission were usually expected.

Cavité is distant about eight or nine miles from the city of Manilla; it is a small miserable town, in which is the arsenal, dock-yard, &c.; it is situated on the eastern extremity of a low bifurcated peninsula, of a semilunar shape, which extends into the sea about three miles on the south-east side of the bay of Manilla, and terminates towards the east. The harbour is the resort of shipping during the rainy monsoon; and the country around Cavité is fertile and beautiful. Water is, however, both scarce and bad, excepting that which is caught during the rains and preserved in tanks (which is the plan generally adopted by the respectable inhabitants); the supply for shipping is procured from a river at some distance. Provisions, both at Manilla and Cavité, are abundant and cheap. The seasons are: the fine weather, or dry season, which is during the north-east monsoon; it commences about October, and terminates in April; the Vendeales, or rainy season—which is during the south-west monsoon, and occurs on the remaining months; the heavy rains commence about July, and terminate in September.

Symptoms, Treatment, &c.

Cold and suppressed perspiration is generally considered to be the exciting cause of this complaint; but Dr. Good observes (*Study of Medicine*, vol. ii. p. 532), that "neither cold or suppressed perspiration will account for every instance of common catarrh. There are few practitioners, perhaps, but have sometimes known persons thus affected who have been bed-ridden from chronic lameness or some other cause, and have had their chamber warmed night and day by a fire. Some ladies always catch a cold in the head on quitting the

town for the country; and others again on quitting the country for the town. Something must therefore depend on the actual state of the constitution at the moment, and something upon the variable quality of the atmosphere; and a change in both frequently perhaps concurs in producing the affection of a common catarrh." In influenza the symptoms are of a severer character than occurs in the common catarrh; it is not, however, to be considered a fatal disease, excepting in persons advanced in age who are unable to sustain the severe shock occasioned by it, or in those in whom a predisposition of pulmonary disease has existed. It has been stated that "children and old people either escape entirely, or are affected in a slighter manner;" this I have not found correct, as I have seen symptoms of a severe and mild character among both aged and young persons, the subsequent cough frequently proving fatal to the former. At Manilla, although no deaths occurred among the Europeans, several took place among the natives, which may be attributed to their bathing in the river during the cold stage of the fever. This disease at Manilla attacked individuals very suddenly; natives employed on board the ships were daily leaving duty, until not one remained; of the troops on shore hardly any remained on duty, and those mounting guard sufficiently indicated, by their suffused eyes, head bound round with a handkerchief, under what affection they were suffering. Many of the shops and the public offices were closed, and all the ships had their crews attacked; so general was it, that for some days business was suspended. The natives met with in the streets had their heads bound up with a handkerchief, from which leaves might be seen protruding, placed there most probably for their cooling properties, as well as small plaisters formed of the *Ignatia amara*, or *Celastrus* of the natives (which is considered by them as a very efficacious external application for pains of the head), were placed on each temple. The commencement of an attack from this disease was with a general lassitude, followed by pains referable to the lumbar region, and in some cases with muscular pains over the whole body; an increased secretion of mucus in the nose, as also in the fauces and bronchiæ; intense headache, principally referable to

the frontal sinuses; tongue white; eyes suffused with tears; skin hot; much thirst; a rawness of the throat; cough, particularly troublesome at night; in some cases a restriction across the chest as much felt; appetite impaired; bowels generally costive; quick pulse; and in those of very plethoric constitutions (in whom the attacks are severer), a very quick full pulse; flushed countenance. The symptoms varied in intensity in different persons; some having the fever and concomitants so high, with a flushed countenance, and a pulse so full, strong, and quick, as to have almost induced me to resort to venesection; other cases again assumed a very mild character, but in a very light degree incapacitating the patient from pursuing his occupations. The patients were worse during the night than during the day, the accession of the fever and cough being much greater at that period. After the patients had to some degree recovered, a troublesome cough, attended in most cases with much expectoration, remained, and in delicate constitutions may be apt to lay the foundation of pulmonary disease. The mode of treatment I adopted was simple and effective, being from gr. x. to gr. xvj. of the Pulv. Ipecac. c. in a warm cup of tea, so as to produce copious diaphoresis. This invariably on the following day relieved the intenser symptoms; purgatives were subsequently administered. The cough, which remained for a long time after the other symptoms had disappeared, was treated by sedative and demulcent mixtures. It was found of essential service to keep the bowels freely open. I had thirty-three cases on board the ship *Sophia*, of which sixteen were mild and seventeen severe cases. I was myself first attacked (on the 8th of September) by this complaint, but it assumed a very mild character; on the 11th, the Commander, my friend Mr. Hayes, the third officer; and a seaman came on board, suffering from very severe attacks; on the 12th, only one new case on the list; on the 13th, six new cases; on the 14th, sixteen new cases; on the 15th, six new cases. Only four persons on board escaped the epidemic—the cook (an African black), the carpenter, and two seamen, one of whom was suffering at the time from an attack of dysentery.

The following case will suffice to show its general character:—James Titmouse, aged 15 years, attacked suddenly when on duty: great depression, much thirst, tongue white, skin hot and dry, severe pain in the head, principally at the frontal sinuses, and extending to the temporal regions, eyes suffused and inflamed, severe cough, attended by much expectoration at night. Pulv. Ipecac. c. grs. xij. h. s. s. which produced a profuse perspiration on the following morning, by which the severe symptoms were much mitigated. Bowels costive: a purgative draught given, which acted freely. The cough remained alone troublesome, which was subsequently allayed by demulcents, and he was discharged cured after five days' illness.

This epidemic prevailed in China in January 1830, (as well as in September 1830.) To the kindness of John Lawson, Esq. surgeon of the H. C. S. *Ingles*, I am indebted for the following brief notice of the disease as it appeared on board that ship:—"The disease first appeared on board the H. C. ship *Ingles* while at China, on the 25th of January, 1830; on which day eight or nine men were suddenly seized; on the day following, twenty-four were attacked; on the 27th, eight or ten; and on the 28th and 29th, six more cases are recorded, after which there were no new cases. The attack was sudden, and the disease, within two hours, as severe as during any time of its continuance. The symptoms were pain in the head, more especially over the frontal sinus, cough, discharge from the nose, sense of rawness in the throat and chest rather than severe pain, great prostration of strength; in some of the cases there was pain in the epigastrium, as well as across the loins; with severe aching pains in the limbs, pulse frequent, but generally soft. The febrile symptoms, in most cases, had entirely subsided on the third or fourth day, and the cough, in the majority of instances, in about the space of a week from the commencement. There were, however, some exceptions, where a troublesome cough remained for two or three weeks. The remedy employed at the commencement was an emetic of ℞j. Pulv. Ipecac. with, subsequently, febrifuges and purgatives. One man, who had for a length of time been confined to his hammock with

swelled testicle, was also attacked among the rest, but it left him at the usual time, his other complaint having been in no way affected by it."

The epidemic catarrh has prevailed extensively within the last month and part of the present in this town (Plymouth) and vicinity, and I give with pleasure the report of my friend P. F. Bellamy, Esq. of Plymouth, respecting the cases that have been under his charge.—"The epidemic catarrh has prevailed extensively in this, the adjoining towns, and neighbouring villages. I have myself had upwards of fifty cases under my care, about forty of whom are employed on board the Breakwater vessels, and five of the subjects have been children under seven years of age. The patients have been seized suddenly with head-ache, in some cases intense, accompanied with high excitement, and in three cases with delirium; pains in the chest, loins, neck, and limbs; deep cough, dyspnoea, suffusion of the eyes, defluxion of mucus from the eyes, and, in the course of two or three days, copious expectoration; in general there has been great mental and bodily depression; in some instances, soreness of the mouth and throat; the state of the tongue, pulse, kidneys, and bowels, very various. Within the last fortnight, some of the cases have terminated in a diarrhoea. The attack has lasted from three to ten days. The mode of treatment has been very various."

Plymouth, July 14, 1831.

Temperature of the Atmosphere at Manilla previous to and during the Epidemic Catarrh.

JUNE—From the 20th to the 30th:—

Lowest range of the Thermometer, 76°
Highest range 88°

General Remarks.—The portion of this month during which I was at Manilla, was fine and clear; the temperature of the atmosphere not particularly variable. Thunder and vivid lightning frequent, the latter constant during the evenings and nights. Common catarrhs were not unfrequent. The 20th, 28th, and 29th, were attended by heavy rain during the whole day.

JULY—From the 1st to the 31st:—

Lowest range of the Thermometer, 82°
Highest range 90°

General Remarks.—During this month the weather was remarkably dry: for a few days only there were a few temporary showers, during which the thermometer fell very low, rendering the atmosphere, which was sultry before, cool and chilly; the thermometer again rising high on the subsidence of the shower, when the air again became successively oppressive. Vivid lightning constant during the evenings and nights with occasional thunder.

AUGUST—From the 1st to the 31st:—

Lowest range of the Thermometer, 74°
Highest range 84°

General Remarks.—Calms, and wind S.W. and variable. This month attended by very close, sultry atmosphere, and occasional cold, chilling winds of short duration. Vivid lightning as usual in the evening and night, and occasional thunder. Light showers on the 5th, 12th, 13th, 17th, and 29th, generally in the evening and night.

SEPTEMBER—From the 1st to the 31st:—

Lowest range of the Thermometer, 74°
Highest range 84°

General Remarks.—Weather close and sultry, with cool, chilling breezes at intervals; very variable temperature. Calm, and wind S.E. and N.E. with occasionally strong breezes from S.W. On the 5th, the epidemic catarrh commenced among the Europeans and natives, which became so general that scarcely an individual escaped. Dry weather, excepting very partial showers on the 5th, 7th, and 14th.

CONIUM MACULATUM.

To the Editor of the London Medical Gazette.

SIR,

AGREEABLY to the intention announced in your journal, No. 176 (16th April last), I have the honour to communicate to you the results of a course of experiments on *Conium maculatum*, which I request the favour of you to insert in your journal.

No. 1.—The whole of the colouring matter and aromatic properties were

discharged from one ounce of the leaves of conium (dried at a temperature of 120 degrees), by two macerations in rectified spirits of wine, each for 24 hours. The decanted spirit was gently distilled, and left 78 grains of resinous matter, partaking highly of the aromatic properties of the plant. A drachm

the resinous matter having been incinerated, the ashes were boiled in water; nitrate of silver was added, and a precipitate ensued, which, being submitted to the action of the blow-pipe, two grains and a half of silver were revived, shewing the presence of two grains of muriatic acid. The ashes remaining (nearly the whole), were then boiled in water acidulated with nitric acid, chloro-prussiate of potash was added to the liquor, and the presence of iron was shewn by a slight blue colour. The leaves originally acted upon by the spirit of wine weighed, when re-dried, six drachms, six grains—loss 36 grains. They were incinerated, and the ashes having been boiled in water, a solution of nitrate of silver was added. A precipitate ensued, and the revived silver weighed four grains. The residuum of these ashes, boiled in water acidulated with nitric acid, chloro-prussiate of potash being added to the solution, a very slight blue colour was produced.

No. 2.—Nearly the whole of the colouring matter and aromatic properties were taken up by two similar macerations in *proof spirit* (each 24 hours.) The spirit, after standing some hours, changed gradually to a yellow colour, and a precipitation of green flocks ensued, which, when dried, weighed eight grains. The precipitate was wholly dissolved by rectified spirit, imparting to it a green colour, but not much of the aromatic flavour. The liquid from which the eight grains were separated being distilled, yielded four drachms, ten grains, of extract, tasting strongly of the conium.

The re-dried leaves, weighing three drachms, fifty grains, not being wholly deprived of their colour, were incinerated, and the ashes boiled in water. Nitrate of silver was added, *but no precipitation ensued*. Having been then boiled in water, acidulated with nitric acid, and chloro-prussiate of potash being added, a very slight blue colour was produced.

No. 3.—Four ounces of the dried leaves were incinerated; the ashes were

boiled in three separate portions of water; the three portions were then mixed and evaporated to dryness. Thirty-eight grains of saline matter remained, which having being again dissolved in water, nitrate of silver was added so long as any precipitate ensued: the silver revived from this, weighed seventeen grains, shewing the presence of fifteen grains or thereabouts, of muriatic acid. The addition afterwards of a few drops of nitrate of barytes, to the same liquid, produced a slight degree of cloudiness.

The residuum of the ashes (being about one-half) was boiled in water acidulated with nitric acid, and chloro-prussiate of potash being added, a very slight blue colour was produced. Oxalate of ammonia effected no change.

The tests above-mentioned shew the presence of muriate of soda, in considerable quantity, a very small portion of sulphate of soda, and a trace of iron.

No. 4.—Six gallons of the juice (14 lbs. yielding about a gallon), in a temperature of 100 degrees, lost its green colour, the green matter separating in flocks and floating on the surface. This being collected and dried on filtering paper, at a gentle heat, weighed 5 ounces, 1 drachm, 36 grains; which, being pulverized, was macerated in cold spirit of wine so long as it imparted any colour. It was then nearly exhausted of the remaining colouring matter, by boiling in spirit of wine. The spirit, upon careful distillation by the most gentle heat, gave 1 ounce, 4 drachms, 30 grains, of resinous matter, *tasting and smelling very strongly of the plant*. The refuse from the green resinous matter, subjected to the spirit of wine, when re-dried, weighed 3 ounces, 1 drachm, 30 grains; having lost 3 drachms, 36 grains. The spirit had a slight flavour of the conium, but not sufficient to warrant the supposition that 3 drachms, 36 grains, could have been held in solution by it. In two or three weeks the spirit deposited a white flocculent matter, which, on being separated from the spirit and dried, weighed two grains. It possessed the taste and smell of the plant; did not burn on the application of flame.

The resinous matter from which the spirit had been separated by distillation, was very pungent, smelling and tasting most sensibly of the plant. It nearly volatilized in a strong heat, leaving only a small portion of muriate

of soda, amounting to about 2½ grains from the drachm. During the combustion, the smell of conium was most perceptible. The refuse from the green matter which had been nearly exhausted of colour by repeated macerations in spirit of wine, was incinerated, and the ashes were boiled in distilled water. On the addition of nitrate of silver to this solution, the slightest cloudiness only ensued. The ashes being boiled in water acidulated with nitric acid, and chloro-prussiate of potash being added, a very slight blue colour was observed.

No. 5.—The juice from which the green matter had been separated (No. 4) was carefully distilled to three pints. The first gallon that came over tasted a good deal of the conium, and there appeared to be a small quantity of essential oil floating on the surface. The second gallon had considerably less flavour, and in the three last, scarcely any smell or taste was perceptible. In about fourteen days a white flocculent separation appeared in the liquor of the first gallon, and on examination it appeared to be the same as that which precipitated from the distilled spirit (No. 4); the essential oil had disappeared, and the water had comparatively little smell or taste. The three pints of thick liquor remaining in the still were evaporated on a water-bath, to the consistence of an extract, which weighed 1½ lbs., having scarcely any smell or taste of the conium.

Four ounces of this extract were incinerated, and the ashes were boiled in three successive portions of water; the three quantities of water were mixed and evaporated, leaving fifty-six grains of saline matter, which was redissolved in water: nitrate of barytes being added to the solution, a precipitate ensued, which when dried weighed two grains. Nitrate of silver was then added to the same liquor, and a copious white precipitate appeared. The silver being revived from this precipitate, weighed twenty grains, proving the presence of seventeen grains of muriatic acid. The ashes remaining were boiled in water acidulated with nitric acid, and chloro-prussiate of potash being added, a slight blue precipitate ensued. Oxalate of ammonia produced no change.

These experiments shew that the plant contains;—

Much extractive matter, containing little medicinal property;—

Green resinous matter, possessing a highly-volatile principle, on which its active medicinal property of the plant appears to depend;—

Muriate of soda in considerable quantity;—

Sulphate of soda in small proportion;—

Iron in the proportion of about six grains to a hundred-weight of the fresh plant.

The medicinal properties being thus evidently, contained in the green resinous matter, the question arises in what form it can be most beneficially administered. The present mode of preparing the extract, by evaporating the expressed juice till it acquires a proper consistence, is obviously defective, and upon attentive consideration will be seen that the green resinous matter, when once separated from the juice, cannot be again intimately combined with the extractive matter; and that evaporation at a temperature exceeding 120 degrees, volatilizes the principle on which the power of the plant appears to depend, (Nos. 1, 2, and 4). Hence the irregular action and uncertain effect of the medicine, as now prepared; and it follows that the preparation No. 2, by proof spirit, procured from the leaves dried at not more than 120 degrees, or the powder, is the best form.

I am, Sir,
Your obedient servant,
R. BATTLEY.

Ophthalmic Laboratory, Moorfields,
July 20, 1851.

ANALYSES & NOTICES OF BOOKS.

"L'Auteur se tue à allonger ce que le lecteur se tue à abréger."—D'ALEMBERT.

Pathological and Practical Researches on Uterine Inflammation in Puerperal Women. By ROBERT LEE, M.D. F.R.S. Secretary to the Society, Physician to the British Lying-in Hospital, &c. &c.*

In October 1829 Dr. Lee presented to the Medical and Chirurgical Society the first of that valuable series of papers on

* *Medico-Chirurgical Transactions*, vol. xvi. part 3.

uterine inflammation which have associated his name with one of the most important improvements in modern pathology. To these papers ample justice has been done in the pages of this journal; and we lose no time in bringing under the notice of our readers the continuation of Dr. Lee's labours.

During a period of somewhat more than four years, one hundred and twelve cases of well-marked uterine inflammation have fallen under Dr. Lee's observation, and thirty-four of forty, which proved fatal, were carefully examined after death. The peritoneum and uterine appendages were inflamed in twenty-six cases; uterine phlebitis existed in fourteen; inflammation of the muscular part of the uterus in eight; and in four the absorbents were distended with pus;—these facts are decidedly opposed to the common opinion, that puerperal fever consists of a general specific disease, without local affection of the uterine apparatus. The object of the paper before us is to point out the various changes produced by inflammation in the uterus and its appendages; to describe the symptoms by which their presence is indicated during life; and lastly, to inquire into the proper treatment.

I.—*Inflammation of the Peritoneal Covering of the Uterus, and of the Peritoneum generally.*

The method adopted by Dr. Lee is to give general descriptions, followed by the cases from which these have been deduced. We must content ourselves with the former, referring such of our readers as may require farther information, to the work before us. We shall quote the author's own words:—

“The effects produced by inflammation of the peritoneal coat of the uterus in puerperal women do not essentially differ from those produced by ordinary peritonitis in the male sex. Where inflamed, the peritoneum becomes vascular, red, apparently thickened, and a secretion or substance of a yellow colour, in the form of false membrane, is thrown out, producing adhesion of the abdominal viscera to each other; or a turbid, serous, whey-coloured, or red fluid, mixed with shreds of albumen or pus, is effused in greater or smaller quantity into the cavity of the peritoneum.

“Puerperal peritonitis usually commences in the peritoneum of the uterus, and extends from thence with greater or less rapidity, according to the severity of the attack, to the general peritoneal membrane. In some cases, the inflammation is confined to the uterus, and it is generally most severe in this organ, or in the parts immediately contiguous. Even when it has extended to the other viscera, and affected them most severely, the peritoneum of the uterus invariably exhibits signs of recent inflammation. The lymph is for the most part thrown out in thicker masses around the uterus than in any other situation, and this viscus has seemed to suffer in the greatest degree from the violence of the inflammation.

“Sometimes considerable depositions of pus are formed beneath the peritoneal coat of the uterus, which are either prominent and circumscribed, or diffused throughout the cellular membrane. This infiltration I have most frequently met with at the part where the peritoneum is reflected from the uterus and vagina to the rectum.

“Inflammation of the peritoneal coat of the uterus is characterized by great tenderness of the surface of the organ, increased on pressure, and by pyrexia more or less severe. In every instance, on a careful examination of the uterine region, there has been more or less pain in it, increased by pressure, with constitutional disturbance, though it must be admitted that the pain and febrile symptoms have varied greatly in intensity.

“When the attack of peritonitis is severe, the patient commonly lies upon the back, with the knees drawn up to the trunk of the body. At the onset of the disease, the abdomen is generally soft and flaccid, and, except in the region of the uterus, not affected by pressure. Dr. Hulme has described the pain as affecting the whole hypogastric region from the commencement of the attack, but this is the case only where the disease has made considerable progress, or has extended from the uterus to the general investing membrane of the abdomen. Though an enlarged and painful state of the uterus be never altogether wanting, yet the pain often undergoes exacerbations similar to after pains, and is often mistaken for them by careless observers, and the disease is

thus overlooked till a great part of the peritoneal sac is inflamed, and the case in consequence is rendered hopeless.

"The whole abdomen at length becomes distended, tympanitic, and occasionally exquisitely painful on pressure. Vomiting of dark green-coloured fluid substances follows. The pulse grows rapid and feeble, the tongue dry and brown, the lips and teeth covered with dark sordes, diarrhœa frequently supervenes, and death ensues at no very remote period.

"The invasion of pain in the uterus is sometimes sudden; at other times, the ordinary increased sensibility of the uterus, subsequent to the efforts of natural labour, or after pains, passes slowly and insensibly into the acute pain increased by pressure, which is the great characteristic symptom of uterine inflammation. Most frequently the accession of the disease is marked by rigors, partial or general, sometimes so slight as scarcely to be perceived by the patient, at other times so violent as to produce strong succussions of the whole body. The cold shivering after a longer or shorter duration passes away, and is succeeded by great heat of the surface, acceleration of the pulse and of the respiration, thirst, sometimes nausea, and vomiting, and intense pain across the forehead. The rigors precede, accompany, or follow the increased sensibility of the uterus. In some of the most severe cases, there has been no distinct rigor, but a quick pulse, hot skin, and hurried respiration, have rapidly succeeded to the uterine pain. In some of the most unfavourable cases, the extremities have been cold, and the countenance anxious and pallid, after the disease has been completely formed.

"There is no uniformity in the state of the tongue in puerperal peritonitis. It is sometimes covered with a thin, moist, white, or cream-like film; at other times it is red in the centre, with a thick, yellow, or white fur on the edges.

"The lochia are often completely suppressed, in other cases only diminished in quantity. The mammæ usually become flaccid, yet in some fatal cases, the milk has been secreted till a short period before death.

"Puerperal peritonitis may be confounded with the irregular contractions of the uterus, which constitute after pains and hystericalgia, and it must be

admitted that in some cases it is difficult to draw a line of distinction between them. Where the pulse is accelerated, the remissions of pain incomplete, the lochia scanty or suppressed, in a large proportion of cases we shall arrive at a correct diagnosis by considering the peritoneal coat of the uterus, or its deeper seated tissues, in a state of congestion or inflammation, and employing antiphlogistic treatment. There are few puerperal women, except those of a feeble and irritable constitution, or who have been previously exhausted by hæmorrhage, or some chronic disease, who are seriously injured by cautious depletion, local or general; and where death has followed the abstraction of 16 or 20 ounces of blood from the arm, the fatal result may fairly be attributed to the disease, and to the neglect of the remedy rather than to its abuse.

"Intestinal irritation, depending on a disordered state of the bowels, is also liable to be mistaken for peritonitis, and treated by bloodletting, to the injury of the patient. In this affection the abdominal pain is diffused; it is rather a griping than acute pain: it does not commence in the region of the uterus, nor is it aggravated by pressure. The abdomen is generally soft, puffy, and distended. The tongue is loaded. There is thirst and head-ache, the lochia and milk are not suppressed, the febrile attack is usually preceded by evident signs of great intestinal derangement, flatulence, nausea, vomiting, constipation or diarrhœa. The constitutional disturbance attending intestinal irritation, comes on about the end of the first week, whereas peritonitis manifests itself most frequently before the fourth day subsequent to delivery. The reaction which succeeds to uterine hæmorrhage cannot easily be confounded with puerperal peritonitis. The morbid sensibility of the uterus, which characterizes inflammation, and the other symptoms already described, are here entirely wanting."

The next division of the subject relates to

II. *Inflammation of the Uterine Appendages, Ovaria, Fallopian Tubes, and Broad Ligaments.*

"In one case only I have found the uterine appendages free from disease, where the peritoneal covering of the uterus has been inflamed, but frequently

the peritoneum has been slightly affected, where the appendages of the uterus have been extensively disorganized. The surface of the broad ligaments, ovaria, and fallopian tubes, have been red and vascular, and partially or completely imbedded in lymph or pus. The loose extremities of the fallopian tubes have been of a deep red colour and softened, and deposits of pus in a diffused or circumscribed form have taken place in their cavities, or in their sub-peritoneal tissues. Between the folds of the broad ligaments, effusions of serous or purulent fluids have also been found.

Numerous important changes have likewise been observed in the structure of the ovaria. Their peritoneal surface has often been red, vascular, and imbedded in lymph, without any visible alteration of their parenchymatous structure, or their whole volume has been greatly enlarged, swollen, red, and pulpy; blood has been effused into the vesicles of De Graaf or around them, and circumscribed deposits of pus have been found dispersed throughout the substance of the enlarged ovaria. In several cases, the entire structure of the ovaria has been reduced to a broken-down vascular pulp, no traces of their natural organization being left. These changes are accurately represented in the drawings now exhibited to the Society.

"The ovarium appeared in one instance, which I observed to be converted into a large purulent cyst, which had contracted adhesions with the abdominal parietes, and discharged its contents exteriorly, through an ulcerated opening. In another case which proved fatal, the inflamed uterine appendages, agglutinated together by lymph, had contracted adhesions with the peritoneum at the brim of the pelvis, the inflammation had extended to the cellular membrane, exterior to the peritoneum, and had given rise to an extensive purulent deposit in the course of the psoas and iliacus internus muscles, as in lumbar abscess.

In two other individuals who ultimately recovered, the purulent matter, formed in the situation of the psoas and iliacus internus muscles from inflammation of the uterine appendages, made its way through an opening at the upper part of the thigh. Contraction of the thigh on the trunk took place in

both these cases, and continued for several months, but disappeared on the recovery of the patient. The uterus remains immovably fixed to the right side of the pelvis, in a woman who, six months ago, had a severe attack of inflammation of the peritoneum, and uterine appendages of the same side, a few days after delivery.

"Inflammation of the uterine appendages being generally combined with peritonitis, to a greater or less extent, it is often difficult to establish a diagnosis between these varieties of uterine inflammation. The pain is less acute than in peritonitis, and is principally situated in one or other of the iliac fossæ, extending from them to the loins, anus, and thighs. On pressure, the morbid sensibility will be found chiefly to exist in the lateral parts of the hypogastrium. The constitutional symptoms at the onset of the attack, do not materially differ from those which mark the accession of peritonitis, being often accompanied with strong febrile reaction, which passes speedily away, and is succeeded by prostration of strength, and the other appearances which characterize inflammation of the muscular and venous tissues of the uterus."

III. *Inflammation and Softening of the Proper or Muscular Tissue of the Uterus.*

It appears that this is a rapid and destructive variety of uterine inflammation, which has been but little noticed in this country, though alluded to by several of the French and German pathologists.

"Inflammation of the muscular coat of the uterus most frequently commences with pain of the hypogastrium, irregularity of the lochial discharge, and rigors, succeeded by the other symptoms of pyrexia. The countenance becomes pallid, and is usually expressive of great anxiety and distress. There is often severe head-ache, with delirium and other affections of the brain and nervous system, and so violent have these been in some cases, that the local affection of the uterus has completely escaped detection during life. The skin is hot and dry, and sometimes of a peculiar sallow tinge; the pulse is rapid and feeble. The respiration hurried, with remarkable prostration of strength. The tongue soon becomes foul. The lips covered with

thus overlooked till a great part of the peritoneal sac is inflamed, and the case in consequence is rendered hopeless.

"The whole abdomen at length becomes distended, tympanitic, and occasionally exquisitely painful on pressure. Vomiting of dark green-coloured fluid substances follows. The pulse grows rapid and feeble, the tongue dry and brown, the lips and teeth covered with dark sordes, diarrhœa frequently supervenes, and death ensues at no very remote period.

"The invasion of pain in the uterus is sometimes sudden; at other times, the ordinary increased sensibility of the uterus, subsequent to the efforts of natural labour, or after pains, passes slowly and insensibly into the acute pain increased by pressure, which is the great characteristic symptom of uterine inflammation. Most frequently the accession of the disease is marked by rigors, partial or general, sometimes so slight as scarcely to be perceived by the patient, at other times so violent as to produce strong succussions of the whole body. The cold shivering after a longer or shorter duration passes away, and is succeeded by great heat of the surface, acceleration of the pulse and of the respiration, thirst, sometimes nausea, and vomiting, and intense pain across the forehead. The rigors precede, accompany, or follow the increased sensibility of the uterus. In some of the most severe cases, there has been no distinct rigor, but a quick pulse, hot skin, and hurried respiration, have rapidly succeeded to the uterine pain. In some of the most unfavourable cases, the extremities have been cold, and the countenance anxious and pallid, after the disease has been completely formed.

"There is no uniformity in the state of the tongue in puerperal peritonitis. It is sometimes covered with a thin, moist, white, or cream-like film; at other times it is red in the centre, with a thick, yellow, or white fur on the edges.

"The lochia are often completely suppressed, in other cases only diminished in quantity. The mammae usually become flaccid, yet in some fatal cases, the milk has been secreted till a short period before death.

"Puerperal peritonitis may be confounded with the irregular contractions of the uterus, which constitute after pains and hystericalgia, and it must be

admitted that in some cases it is difficult to draw a line of distinction between them. Where the pulse is accelerated, the remissions of pain incomplete, the lochia scanty or suppressed, in a large proportion of cases we shall arrive at a correct diagnosis by considering the peritoneal coat of the uterus, or its deeper seated tissues, in a state of congestion or inflammation, and employing antiphlogistic treatment. There are few puerperal women, except those of a feeble and irritable constitution, or who have been previously exhausted by hæmorrhage, or some chronic disease, who are seriously injured by cautious depletion, local or general; and where death has followed the abstraction of 16 or 20 ounces of blood from the arm, the fatal result may fairly be attributed to the disease, and to the neglect of the remedy rather than to its abuse.

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sordes. Occasional vomiting is experienced. The progress of the disease in some cases is rapid, in others it runs its course more slowly, being protracted to the eighth or tenth day.

"It must be admitted, that the diagnosis of this variety of uterine inflammation, particularly where it is complicated with peritonitis or phlebitis, which is frequently the case, is difficult, or even impossible. If the attack of inflammation of the muscular coat be sudden and violent, it becomes so speedily complicated with peritonitis more or less acute, that the symptoms are readily confounded together, and it is impossible to distinguish with certainty the symptoms which are to be referred to peritonitis, and those which result from the affection of the muscular coat. The prostration of strength, the alteration of the features, which often exists from the commencement, the feebleness and rapidity of the pulse, the irregular fœtid state of the lochia, are not such constant symptoms as to be pathognomonic, and may arise from other causes. Hence it will appear that the most attentive consideration of the phenomena will not lead us to any certain conclusion as to the nature of the affection, and as in many other diseases we can only determine its precise character by the history of its origin and progress, and by the alterations of structure discovered after death. In all the cases of this affection which I have observed, the resources of nature and of art have proved equally unavailing in arresting its fatal course. The active inflammatory symptoms, which commonly manifest themselves at the commencement of the attack, pass speedily away whatever plan of treatment be adopted, and are rapidly succeeded by symptoms of exhaustion. Where the disease is not complicated with inflammation of the peritoneum, the symptoms are not such as to indicate the necessity for the employment of resection; and in one case where it was adopted freely, the abstraction of the blood was followed by speedy death. In other cases, where the opposite plan of treatment was had recourse to, the fatal result seemed to be less speedy, though equally certain.

"A case of spontaneous rupture of the uterus came under my observation in July 1828, and was attended by the posterior part of the organ was

soft gelatinous pulp. Another case was related by Dr. Merriman to this Society, on the 10th of March, 1829, in which the same cause appeared to have given rise to a similar result; and here not only had the parietes of the uterus undergone this morbid softening, but the spleen, liver, and other viscera, were found peculiarly soft in their texture, so that the finger could scarcely be put upon these parts without tearing them.

"These facts, with those related by Professor Boër, render it probable that the occurrence of softening of the uterine parietes may occasionally take place during utero-gestation, as well as subsequent to delivery."

IV. *Inflammation of the Veins and Absorbents of the Uterus.*

Mr. Hawkins found the absorbents of the uterus and the receptaculum chyli filled with pus, in a case which he examined in July, 1829: since which period, Dr. Lee has met with four cases in which the absorbents in the vicinity of the uterus were distended with purulent fluid; in three of which cases there existed inflammation and suppuration of the veins. This inflammation of the absorbents would seem, from the observations of MM. Tonellé and Duplay, to be not an unfrequent occurrence in puerperal women, and to give rise to the same constitutional disturbance as uterine phlebitis.

"In women who have enjoyed good health during pregnancy, and in whom the process of parturition has been easily accomplished, uterine phlebitis occasionally commences within twenty-four hours after delivery, with pain more or less acute in the region of the uterus, accompanied or followed by a severe rigor, or a succession of rigors, suppression of the lochial discharge, acceleration of the pulse, cephalalgia or slight incoherence of ideas, with an insuperable sensation of general uneasiness, and sometimes by nausea and vomiting. These symptoms, after a short duration, are succeeded by increased heat of the body, tremors of the face and limbs, rapid feeble pulse, anxious and hurried respiration, great thirst, with brown dry tongue, and frequent vomiting of green coloured matters. The sensorial functions usually become much affected, and there is a state of drowsy stupor or violent delirium and agitation, which terminates in exhaustion. The whole surface

of the body not unfrequently assumes a peculiar sallow or deep yellow colour, the abdomen becomes swollen and tympanitic, and some of the remote organs of the body, the brain, heart, lungs, liver, and spleen, or the articulations and cellular membrane of the extremities, suffer disorganization, from a rapid and destructive congestion, inflammation, or gangrene.

"At other times, inflammation of the uterine veins commences at a later period after delivery than above-mentioned, and in a much more obscure and insidious form, without either pain or sense of uneasiness in the region of the uterus, or any other local symptom by which the affection can be recognized. The uterus may return to its usual reduced volume after delivery; the lochial discharge may continue to flow, and the inflammation and suppuration of the veins, which have caused the whole of the violent constitutional disturbance and destructive lesions in distant parts of the body, may be wholly overlooked during life! In several cases which I shall now relate, this occurred, and wine, opium, brandy, and sulphate of quinine, with other stimulants, were liberally administered by the medical attendants, to obviate the debility supposed to be caused by a specific fever, without any local affection of the uterine organs.

"Inflammation of veins rarely takes place in any part of the body where it cannot be referred to a wound, or to a specific cause, externally applied to the coats of the vessels. In uterine phlebitis the inflammation cannot, it is true, invariably be traced to the orifices of the veins where the placenta adhered to the inner surface of the uterus, yet it scarcely admits of a doubt but that the frequent occurrence of the disease is the effect of the communication indirectly established between the venous system and the atmospheric air, from the separation of the placenta after delivery. In consequence of this separation, the uterine veins are placed in a condition analogous to that of the great veins of the extremities after amputation and extensive wounds, which condition experience has proved to be favourable to the production of inflammation; and inflammation being once excited in the vessels, may extend along the continuous membrane of the uterine veins to the spermatic or hypogastric veins, and from thence to the vena cava, and

its principal branches returning the blood from the lower extremities."

We have thus given, at considerable length, Dr. Lee's descriptions, because, grounded as they are on cases minutely detailed, we deem them of much value. His account of the causes and treatment of the disease, we must reserve for another opportunity.

Medico-Chirurgical Notes and Illustrations. Part 1. By R. FLETCHER, Esq. Surgeon to the General Infirmary at Gloucester, &c. London, 1831. 4to. pp. 146, with Plates. Price 20s.

THIS work consists of cases illustrative of some important points in surgery; to which are appended the reflections to which they gave rise in the mind of the author. The language is colloquial, and gives the idea of having been penned at the moment when the facts occurred—and what it lacks in elegance, is compensated by its originality. The principal subjects treated of are, spasm of the glottis—strictures of the œsophagus—hernia—lithotomy—and some affections of the testicle. Of these, the observations on lithotomy have appeared to us the most interesting;—they forcibly illustrate the perils of violence. We must remark, however, that the whole seem better adapted for a series of communications to any of the popular medical periodicals, than for the formation of a separate volume: they would thus have obtained more rapid and more extended circulation, and consequently been more useful to the profession. If we can find space, we shall, on a future occasion, give extracts from that part of the work which relates to lithotomy.

Ornithological Dictionary of British Birds. By Colonel G. MONTAGU, F.L.S. Second edition; with a Plan of Study, and many New Articles and Original Observations. By JAMES RENNIE, A.M. F.L.S. Professor of Natural History, King's College, London, &c. &c. pp. 592. Price one guinea.

THIS is really a very pretty book, and considering the manner in which it is

got up, a very cheap one. It contains a succinct, but clear and interesting account of all our native birds, illustrated by some of the best specimens of woodcuts we have ever seen; some of them (that of the white-headed eagle, for example) are admirable, and produce an effect almost equal to that of copperplates. Prefixed is an essay by the editor, replete with instruction; it contains a "plan of study," in which the book of nature is recommended as the best, and a disquisition on the systems of various naturalists. The volume ought to be in the possession of every one desirous of acquiring a knowledge of British ornithology.

MEDICAL GAZETTE.

Saturday, July 23, 1831.

"Licet omnibus, licet etiam mihi, dignitatem *Archie Medice* tueri; potestas modo venendi in publicum sit, dicendi periculum non recuso."—CICERO.

FORGERY OF INDENTURES.

WE probably should not have called the attention of our readers to some of the following facts, but for the tender compassion of our contemporary, who has thought them eminently worthy of notice, and well adapted to excite the sympathies of his disciples. Before we have done, however, it will be perceived how ill-advisedly he has acted in this respect, and even his own party will confess that his "tender mercies are most cruel."

In the ordinary course of things, when an evil adviser has committed the injury upon which he was malevolently bent, he slinks away half abashed, and leaves his dupes in the meshes into which he has treacherously led them; but here we have a miscreant who, with equal folly and wickedness, has no more inclination than power to rescue his victims, yet who doubles the heinousness of his crime by wailing forth an affected song of

lamentation over their calamity. When, both by precept and by practice, he has done every thing in his power to stir up the ignorant against the constituted authorities—and has succeeded in this, though not perhaps to the extent of his wishes—he then comes forward to expose the doings of his misguided followers, and finds that he can do it most effectually under the semblance of commiseration for their sufferings.

One of these deluded persons was the hero of his last week's lamentation. The name of the unfortunate was *Fry—Harry Fry*, as he is familiarly called by our contemporary. This Harry Fry, acting spiritedly up to the principles inculcated in the Lancet school of morality, thought it of course fair game to play a *trick* on a corporate institution: without having the fear of God, or the laws of the land before his eyes, he actually produced a *forged* indenture of apprenticeship—in order to obtain a license from the Apothecaries' Company: he scrupled not to qualify himself by producing a false document, purporting to shew that he had served for five years to one *Dennis Leman*, of Bristol, (a most apocryphal personage, as it would seem upon the trial)—and he succeeded in fully attaining his object. The day of reckoning, however, came: a criminal prosecution was instituted against the culprit by the proper authorities; and it is to the trial, and its consequences, that the worthy Editor, with a world of kind fellow-feeling, thinks proper to call the attention of the public in one of his last week's lucubrations. Never, perhaps, did delinquent attempt, with more flippant effrontery, or barefaced impudence rather, to bully both judge and jury, and to make light in every possible way of the crime he had committed, than did this Mr. Fry. He was verily a worthy disciple of the school to which he belonged,—“a Lothario,” too, as it came

out—an accomplished *iam marti quam mercurio* sort of gentleman. But unfortunately, his talents were not appreciated as he could have wished by the learned judge, and he was sent to study a new code of morals in a place where he will have plenty of leisure for the purpose. He was sentenced to be confined for twelve months in Ilchester jail. And such is the brief history of this clever and redoubtable hero.

But our contemporary turns up his eyes, and exclaims, with an affected horror at the *severity* of the sentence, (perhaps, indeed, his attention is rather sympathetically directed just now to the nature and circumstances of a jail residence)—and with the consummate tact of a master, throws out a hint (alas! that it should have come too late) how the punishment—nay, the conviction, might in Fry's case have been evaded. "I could have taught him how to do it better," said Jonathan Wild, on a certain occasion in his history. And "if," says our new Jonathan, "*if Mr. Fry had disguised his writing when he signed his name at the Hall, there could have been no conviction!*" No, nor detection, perhaps, he might add. There's a valuable hint for the Lancet neophytes! Let all who have a mind to be bold men lay up this in their hearts: all they have to do is to disguise their hands when they come before the "old ladies," and they may have a hearty laugh at their expense.

Of Fry's innocence and honesty of purpose the moral Editor cannot entertain a doubt. "The fact of his having written in his usual style shows that he did not consider he was committing any serious offence, &c."

Now this case of Harry Fry is far from being a singular fraud; several such have been committed on the Apothecaries' Company: but Fry is so directly the *protégé* and pupil of the Lancet school, that we feel ourselves particularly

bound to notice his proceedings: and perhaps we may be pardoned for alluding to a few more cases belonging to the same connexion, in order to illustrate (if illustration be any longer necessary) the tendency of those principles which our contemporary advocates. Not to dwell needlessly on the case of John Clapham—the unfortunate witness produced by Wakley on his trial for libelling Mr. Bransby Cooper—whose evidence was rejected in consequence of the condemnation which proceeded out of his own mouth—and who, upon conviction, subsequently, for *perjury*, was thrown into the jail of Huntingdon for six months; we shall give a parallel example to that of Harry Fry—a history which will probably be found to form the sequel and completion of that which we have just been alluding to.

Some persons have been curious enough to inquire who that *Dennis Leman* was, whose name figured so conspicuously on Fry's trial. Was he a real or a fictitious personage? Had he a local habitation or existence among men at all—for at *Bristol*, or elsewhere, nobody seemed to know any thing about him; or was he a being of the class of John Doe and his celebrated companion? Or an intangible personage, like Swing or Terry Aik? We regret that we cannot give our readers any very satisfactory information about the gentleman; but by turning to our third volume, page 358, they will find, by some facts which we have there placed on record, what must at least be looked upon as a very curious coincidence. They will not fail to remark the force of example—in fact, that it is with Leman and Fry exactly "like master like man," and that a very pretty parallel might be instituted between them.

It appears that in the year 1829 a person named Dennis Leman stood precisely in the same predicament as did Harry Fry a few days ago.

He was prosecuted by the King, at the instance of the Apothecaries' Company, for having imposed upon them a forged indenture of apprenticeship: but he differed materially from Mr. Fry in one important particular—he confessed his guilt, and stated that he felt the greatest contrition for his crime: "it was committed," as his counsel suggested, "*from some instigation, not from his own mind.*" Is this, by the way, we would ask, the reason why the *Lancet* will pretend to know nothing about Leman—the craven renegade, as we suppose the Editor would call him—but pours out its lavish commendation on the obstinate and dauntless Fry? We shall give a few passages from the Judge's address to the former.

Mr. Justice Bayley.—"Dennis Leman, you have pleaded guilty to an indictment charging you with a *very serious offence*—that of having fraudulently produced to the Examiners of the Apothecaries' Company a certain indenture of apprenticeship, for the purpose of imposing upon them, and inducing them to believe that you, who had served no apprenticeship, and who were not qualified to be subjected to an examination, were so qualified, and had served that apprenticeship. In an unfortunate hour you determined to attempt following the profession, without going through the regular preliminaries: for that purpose you offered yourself to the Apothecaries' Company, and produced a forged instrument. That purpose must have been long brooding in your mind—there is no reason to suppose it to be an expedient suggested at the moment of the offence being committed. You have described yourself as having passed through a preceding education which ought to have produced in your mind better feelings and a more correct judgment, and to have made you revolt against the commission of so great an

offence as this is. The Apothecaries' Company have presented your case to us without pressing any circumstances of aggravation upon you, and we are therefore disposed to pass *as lenient a sentence as, considering the nature of the offence, we are at liberty to do*: but it is a *very grave and heavy crime*, because it is produced by a premeditated act—the production of a forged and counterfeited signature. With every disposition on the part of the Court to mitigate to the utmost extent which, with propriety, they can, they must pass such a sentence as will be calculated to *deter other persons* from committing similar offences. The sentence of the Court upon you is, that you be imprisoned in his Majesty's jail at Ilchester, for the county of Somerset, for the space of six months, and that in the meantime you be committed to the custody of the Marshal of the Marshalsea, in execution of this sentence."

In the case of Leman, there were manifestly, then, several circumstances which should have mitigated, as far as possible, the severity of the sentence—such as the plea of *guilty* put in by the delinquent—his contrition expressed on oath—and the excuse arising from the fact of his having been encouraged and instigated to the commission of the crime. These circumstances being mercifully taken into account by the learned Judge, procured the prisoner the comparatively mild sentence of six months imprisonment; while the absence of all these, in the case of Fry, very properly procured him *twelve*. Yet the editor of the journal in question shudders at the idea of the *savage* inadequacy of the punishment to the crime. We do not know what *his* scale may be by which he would apportion penalties to offences; but this we know, that on the ground of simple morality, and of the dictates

* *Med. Gaz.* vol. III. p. 360, where the report of the proceedings is given from Mr. Gurney's shorthand notes.

of conscience—if that individual possess any such attribute—he may well shudder at some of the convictions which have taken place. It is not long since the disgraceful and flagitious crime of forgery was brought home to our contemporary by Dr. Ramshotham*; and our readers cannot have forgotten that, not more than a few weeks ago, it was our lot to trace another instance of the same offence to the same immediate neighbourhood: in fact, though we did not state it so particularly at the time, to the very right-hand man, the *filius* (?) *Achates* of the worthy—sensitive Editor.

We have said enough, we imagine, for the present, to open the eyes of certain individuals to the *system* which prevails in the School of Forgery of this metropolis; yet we have scarcely said enough to put the simply honest and unsophisticated on their guard. We should scarcely hope in adequate terms to describe by how base and unprincipled an adviser have but too many unlucky persons been betrayed and deluded. We would, however, gladly have abstained altogether from polluting our pages with the annals of crime, were it not that it is of the most vital importance that the community should be aware of the sort of dictator who presumes to take it upon himself to regulate the profession, and who, with impotent efforts, attempts to overthrow every thing that is good and respectable in it, in order to raise a fabric for himself and his myrmidons upon the ruins.

EXTRACTS FROM JOURNALS,

Foreign and Domestic.

ABUNDANT AND WHOLESOME NUTRIMENT FROM BONES.

M. DARCET continues his ingenious researches on this subject. At a meeting of the Académie des Sciences last

month, he read a memoir, of which the following are some of the particulars: The fifteen parts of bone commonly contained in one hundred parts of butcher's meat, will yield six of a pure and substantial alimentary substance; consequently the hundred parts of butcher's meat, which have hitherto produced no more than about twenty-four parts of aliment, will now produce thirty, if the gelatine and fatty substance of the bones be made use of: thus increasing the available portion of animal's flesh by one-fourth, or making four oxen go as far as five. The learned academicien then stated some of the results arrived at by the Committee of the Faculté de Médecine, who have distributed during the space of three months the broth of bones (or as it is called, the *bouillon à la gelatine*) to forty patients and attendants of the Clinique Interne, and thereupon make the following report:—1. That the employment of gelatine not only introduces into dietetics a great improvement, but an economy that should not be neglected; 2. That the broth of bones is as agreeable as that which is usually employed in the hospitals; and 3. That it is not only nourishing and easy of digestion, but wholesome, and by no means productive of any bad effect in the animal economy.

The Hôpital Saint Louis possesses an apparatus capable of producing 900 rations of this broth each day: and the apparatus has been in operation during the last twenty months, so that the hospital has thus been supplied with 550,800 rations of the *bouillon à la gelatine*, attested by the physicians of the establishment to be excellent, and promising the most easy and advantageous means of subsistence for the poor. The Hotel Dieu, also, has an apparatus of the same nature, in use these fifteen months: it has furnished 443,660 rations of the bouillon; and six reports from the establishment, addressed to the Administration of Hospitals, fully bear testimony to the advantage of making use of the gelatine, which may be so abundantly procured from bones.

BREAD FROM SAWDUST.

Dr. Prout, in his learned paper on the ultimate composition of elementary substances, in the Philosophical Transactions, gives a short account of M. Autenrieth of Tübingen's experiments on the conversion of lignin into food.

* See Med. Gaz. vol. vi. p. 756.

M. Autenrieth takes a piece of wood, and by frequent maceration and boiling, separates from it every thing that is soluble in water. The wood thus purified is then reduced to sawdust, repeatedly subjected to the heat of an oven, and finally ground into flour. It requires leaven in the baking, with the addition of which, it makes a uniform spongy bread. The colour is rather yellowish; but when well baked and crusty, it is not only very nutritious, but much superior in every respect to the brown bread made of the bran and husks of corn-flour.

[This is a discovery, as Mr. Herschel remarks*, which renders famine next to impossible; and deserves a far higher degree of celebrity than it has obtained.]

M. RECAMIER'S REMEDY IN PUERPERAL PERITONITIS.

Solution of gum arabic, eight ounces.
Syrup of white poppies, one ounce.
Subcarbonate of potash, one drachm.
To be taken by spoonsful every two hours, in an infusion of marsh mallows.

M. HERISSON'S REMEDY IN CHRONIC GASTRO-ENTERITE.

Alcoholic tincture of black hyoscyamus, one drachm.
Tincture of guaiacum, two drachms.
Thirty drops of the mixture to be taken, morning and evening, in pure water.

A REMEDY IN DYSENTERY.

Acetate of lead, four grains.
Distilled water, two ounces.
Opium (Thebaic extract) two to four grains.

To be taken in spoonsful every two hours. This is a remedy which was very successfully employed at Lyons in an epidemic dysentery, in which antiphlogistics and other means had failed.—*Gazette des Hopitaux.*

CHOLERA AT WARSAW.

Extract of a Letter from Mr. Searle, dated Warsaw, July 4th.

I AM placed in charge of an hospital for the reception of the poor, a mile and a half from the city. The first

difficulty I have to cope with is, that few patients are admitted till their extremities are livid, the pulse lost at the wrist, and the evacuations have spontaneously ceased: this comes of the Medical Board of this place having circulated advice that every person should be bled on becoming the subject of the disease, and drink plentifully of hot water; this treatment is consequently considered specific, and it is not, therefore, till every individual has proved the error that they think of coming to the hospital: to say nothing of the expense and trouble they are subjected to in coming so far. The next thing is, that, when admitted, there is nobody but a few Russian prisoners to see the remedies administered, or to attend upon the sick, except a couple of dressers, who invariably leave the hospital the moment my back is turned; that, in short, nothing is done for them but what is done by myself in person. I have represented the thing to the heads of the department over and over again, promise has been made me upon promise, and in this way have I been fooled up to the time present. Yesterday I made a strong and pressing communication to the Government on the subject; what the result will be I know not. The true state of the case is this—that the Council de Medicine, consisting of a dozen private practitioners of the place, are a junto (for the most part) of ignorant men, and extremely jealous of us foreigners, both English and French, and, I believe, do their utmost to thwart us in every way. I say us, as, although they make great professions of respect and good feeling towards me, yet they do nothing that I require, but only promise. This may be well denominated the land of promise, for these they make in profusion; and it is the same yesterday, today, and for ever. Never, in any situation that I have filled through life, did I feel so truly humbled and disgusted. I feel resources within myself, and burn to exercise them towards the poor and suffering creatures; but no, I am constrained to stand little better than an idle spectator of misery and death, which it is in my power to alleviate, but am not permitted to do so. The disease here, which is precisely the same in character with that in India, is unquestionably, as I have represented, of the febrile class, and dependent upon the same causes as the typhoidal orders of fever usually are—marshy and pestiferous ex-

* See his Discourse on the Study of Natural Philosophy, p. 65.

halations, arising in low, damp, filthy, unventilated situations. To the development of the disease, or to render the individual susceptible of its attack, it would, however, appear that a certain condition of system or predisposition must exist, or it would be of more general influence where filth of every kind so much abounds as it does here. This condition I believe to consist simply or principally in debility: hence the indifferently fed, the badly clothed, and comfortless poor, or those exposed to the inclemencies of the weather and vicissitudes of temperature, and particularly under exhaustion from want of food and bodily fatigue, are the most frequent subjects of its attack. The treatment I find most successful, corresponds with the advice given in my work—evacuating the stomach, in the first instance, with a solution of salt, in the proportion of a large table-spoonful to a tumbler of hot water. This operates almost instantly as an emetic; or where, from atony of stomach, it does not so, a second is administered. The patient then, for cleanliness sake, is sponged all over with one pint of nitric acid, diluted with two of hot water, and hot flannels being in readiness, he is well rubbed with them for half an hour; when, being placed in a warm bed, in an airy room, five grains of calomel are administered every half hour, with a spoonful of brandy added to two of hot water. As excitement becomes developed, the spirit is diminished in quantity, and the intervals between each dose of calomel prolonged, but continued till bilious stools and urine are obtained. Should the breathing be much oppressed, or the fulness of the præcordia, or oppression of the brain considerable, bleeding is required, but not in too large a quantity. The fever which generally follows being of the typhoidal character, requires a great deal of nice management, and they almost invariably here die from neglect; it is always attended with some organic inflammation, which is not to be cured by evacuations. This fever is, however, to be prevented, I am of opinion, by carrying on the calomel to the production of a tender state of the gums, or gentle pyralism; but my views are, instead of persevering with the calomel to this extent, to follow up the treatment, on the appearance of bilious evacuations and urine (or the restoration of secretion), by the quinine,

or bark and wine. I have just completed an apparatus for the inhalation of chlorine, which I intend giving a trial to. The nitrous oxyde, or oxygen gas, I should have preferred, but there are difficulties attending these which I fear are insurmountable. I think it by no means improbable you will have the disease, or something of the kind, in England, as I cannot help connecting its appearance in Europe with some peculiar epidemic influence of atmosphere, seeing that when I passed through Berlin there was an epidemic fever prevailing there, with which 40,000 persons were attacked out of a population of 200,000, and hearing since that an influenza, or something of the sort, is prevailing in Paris. The connexion between cholera and fever has been remarkably exemplified here; at least I have been told that intermittent fever was prevailing to some extent before the cholera; on this appearing the former vanished, and reappeared on the cessation of cholera. The weather here is the most unpleasant I have ever experienced; for a few days it was so hot that I never felt it so oppressive that I remember of, all the time I was in India; this has been followed by constant rain; and with the few comforts the country affords us, it is truly wretched."

REPORTS OF CASES OCCURRING AT PUBLIC INSTITUTIONS.

HOTEL DIEU, TROYES.

CASES TREATED BY M. BEDOR.

Torsion of the Vessels in Two Amputations of the Thigh—Complete Success of the Hemostatic Method.

CASE I.—A soldier, 24 years of age, having had his thigh amputated circularly, on the 9th of June last, for white swelling of the knee, which had come to suppuration, *torsion* was adopted in the operation, and performed in the following manner:—With Amussat's forceps the end of the crural artery was seized, and drawn some lines out of the muscles; it was then carefully isolated, and having been secured with the thumb and index finger of the left hand, at the surface of the wound, it was seized afresh with Amussat's instrument, (which, by the way, closes more firmly than that of Græfe,) and twisted till the inner membranes were ruptured,

by turning the forceps steadily with the right hand in the direction of the axis of the vessel. The crural vein was then twisted; and afterwards two little arteries. In all, four vessels were secured by the method of torsion; and it took up no more time than would have been occupied in perfectly isolating the vessels, and applying so many ligatures. The dressing, however, was not applied for a quarter of an hour after the amputation was effected, it being deemed necessary to remove all the clots with care, so as to be sure that there were no more vessels to be twisted. The cellular tissue being found more gorged than was anticipated, union by the first intention was not thought advisable. On the fourth day, upon removing the bandages, the suppuration was found to be abundant, and of a serous aspect; the flesh looked pale and unhealthy. In three or four days more, however, every thing assumed a most favourable appearance. There was no hæmorrhage; and on the eighteenth day, when this report closes, the wound, healed all to about two inches in length and six or seven lines in breadth, approaches rapidly to a complete cicatrix.

CASE II.—A woman, 28 years of age, labouring under caries of the whole tibia, and one of the condyles of the right thigh, and who had been kept for several months in an immovable and horizontal position, in order to save her from the most excruciating torture, in consequence of which the sacrum, and one of the ischiatic tuberosities, had become affected with gangrenous patches; in this unfavourable condition submitted, as her only chance, to the removal of the limb on the 15th of June last. The crural, and two of the small muscular arteries, as in the preceding case, were secured by torsion. The crural vein did not require it. One of the little arteries did not spirt out till a quarter of an hour after the amputation, and then only in consequence of the repeated removal of the clots; from which, it would seem, to be rather a matter of importance to wait at least that length of time before the dressing is applied, and that all the minute vessels should be narrowly examined, especially when torsion is employed; lest, upon the occurrence of hæmorrhage, the accident should be erroneously imputed to the method. The stump was lean and healthy, and union by the first

intention adopted. On the fourth day, the wound was found closing in at the angles. On the eighth, it was found closed altogether, except about an inch at the centre. And by the fifteenth day, the union was complete. The gangrenous patches on the trunk came off, and the sores left by them are in the way of cure. The woman's general condition is in the highest degree satisfactory.

HOPITAL ST. LOUIS.

M. BLETT'S PRACTICE.

New mode of giving Calomel in the treatment of Syphilis.

A BUTCHER, 28 years of age, contracted syphilis in the course of the last year; and applying for relief to certain practitioners, who disgrace humanity by their vile charlatanism, obtained from them a large quantity of corrosive sublimate, disguised by the admixture of other drugs. The sores got well, or disappeared rather, under this treatment. But, some months after, the man suffered extremely from headache of the most excruciating intensity, of which emetics and bleeding procured him some alleviation. An eruption on the face now made its appearance, chiefly affecting the eyelids and the nose, and this brought him into the hospital. Here, as he shewed symptoms of *gastro-enterite*, he was kept on slops, and such a regulated diet as seemed to check the progress of his disorder for a considerable time: all of a sudden, however, tubercles covered a great portion of his skin. He was ordered the *aqueous extract of opium*, with no success; then other methods, without amelioration. M. Blett now thought he should try a new mode of treatment, which suggested itself to him. This was to give the patient day after day an errhine, composed of a certain quantity of calomel, combined with an inert powder. In this way the man took successively, *eight, twelve, fifteen, twenty grains*, daily; and before a month was well elapsed, found his tubercles gone, his ulcerations cicatrized, and his general health so much improved that he was able to leave the hospital. He came in again subsequently for an inflammation of the synovial capsule of the knee, which was got down by cupping, leeching, and emollient applications. Some

new pustules of his old complaint being observed, he was put on calomel once more, given in the manner just mentioned; and the consequence has been so satisfactory, that there seems to be no likelihood whatever of a return of the disorder.

M. Bielt has employed calomel in powder in several other cases of secondary syphilis, and always with the most satisfactory results. Besides giving it in the form of an erubine, he applies it externally sometimes to venereal ulcers, and his success is truly remarkable.—*Gazette des Hôpitaux*.

WESTMINSTER HOSPITAL.

[FINDING that the following case had been published in one of the Sunday papers, it was our intention not to have given it insertion; but as it has been attempted to make it the foundation of a groundless alarm about cholera, we have deemed it better, on second thoughts, to give to the facts a degree of publicity they have not previously obtained, in order that our readers may not be misled by the advertisements of which they have been made the subject. It was, no doubt, a severe case of cholera, but such, nevertheless, as almost every practitioner must occasionally have met with.—E. G.]

To the Editor of the London Medical Gazette.

SIR,

A CASE of English cholera having been under my care in the Westminster Hospital, more severe than is usual at this season of the year, I feel myself called upon to send a report of it to the Editors of the Medical Journals, because the result is, I conceive, calculated to allay the apprehensions of the public mind. The characteristics of this man's case were, a degree of prostration of strength soon after his admission, from which there appeared to be little hope of his rallying—the nature of the fluid ejected from the stomach and bowels—the violence of the spasms, and the large quantity of laudanum and ether which he took without any excitement or stupefaction having been induced by them. He was placed in a ward amongst other patients, none of whom were acquainted with the nature of his complaint. The disease has not been communicated: it resembles the cho-

lera described by Dr. Sydenham as having raged in England in 1669. The prevalence of a disordered state of the stomach and bowels at this time, affords some grounds for apprehension that there may be something in the air which is favourable to the production of cholera.

I have the honour to be, Sir,
Your obedient servant,
G. HAMILTON ROE.

6, Hanover-Square,
July 18, 1831.

July 6th, 1831.—Patrick Geary, set. 50, residing in Castle-lane, Westminster. Has supported himself during the last two months as a labourer, but for the four preceding years was employed as a worsted weaver in Leeds. The scantiness of his earnings since he came to London has obliged him to live on bread and tea, with an occasional meal of herrings and potatoes.

Yesterday morning he was perfectly well, but whilst at work, he felt swollen about the navel, yet suffered no pain. On his return home, his thirst became very great; he drank a pint of table-beer, which increased the uneasy sensations in his bowels, and he was (almost immediately afterwards) purged very frequently. He slept from eleven till between two and three o'clock, when he was seized with such violent cramps of the feet, legs, thighs, hands, and arms, that he was unable to rise from his bed to relieve the calls of nature. About the same time he began to vomit a fluid, which he says was bitter and sour. He was again violently purged, and felt slight tenderness and pain of the abdomen. He continued in this state, with occasional intermissions of his symptoms, up to this time. He has not been drinking spirits nor eating fruit, nor has he had any illness during the last fifteen years. He was seen by a medical practitioner, by whom he was sent into the hospital: the name of this gentleman is not known.

11, A.M.—His countenance is anxious, and indicates great prostration of strength; skin cold and clammy; pulse 140, scarcely perceptible; respiration hurried; great thirst; some delirium; the slightest movement of the lower extremities occasions cramps.

A draught, with thirty minims of laudanum and a drachm of ether, was given by Mr. Walsh: it was rejected immediately, and a second was given, which remained on his stomach.

Between 1 and 2 o'clock, P.M. I saw him for the first time; his countenance was depressed and anxious; eyes suffused, but not sunk; surface of the body and tongue cold; extremities bathed with cold perspiration; pulse scarcely to be felt; respiration hurried; complains of a sense of scalding in the epigastrium, but has no pain, and very slight tenderness of the abdomen; when a spasm comes on, he writhes about the bed; tongue furred; his bowels have not been moved since his admission; he has the countenance of a man in the last stage of inflammation of the bowels.

This man's danger manifestly arose from the impression made upon the nervous system, which was indicated by the expression of his countenance, feebleness of his pulse, and coldness of his skin. The object, therefore, was to counteract that impression; and for this purpose, he was ordered a warm bath immediately, with warm mucilaginous drinks; and a draught, containing a drachm of ether and a drachm of laudanum, every hour, or oftener if he seemed to require it, till the pulse rallied; cloths, wet with chloruret of lime, were directed to be hung round his bed.

7, P.M.—Skin became warmer after the bath, and he perspired freely; no drowsiness produced by the medicine; has vomited twice since the last report; fluid ejected was like mutton-broth, with dark-coloured mucus in it; countenance less anxious; complains of pain in the head, which is, however, quite cool to the touch; cramp still continues, but not so violent; pulse 100, feeble; tongue not so dry; thirst less; skin cool. He appears to require a stronger stimulus.

R Tinct. Opii, ʒiiss.

Spt. Ammon. Arom. ʒj.

Aque, ʒj. ft. haust. omni hora aumen-

da.

10, P.M.—No vomiting since the last report; cramp less violent; countenance less anxious; bowels not purged; skin warm; pulse 100, with more strength; no pain, except in the head.

R Tinct. Opii, ʒviii.

Spt. Ammon. Arom. ʒviii.

Aque, ʒviii.—ʒj. secunda quaque hora aumen-

da.

Catap. Sinap. epigastrio.

7th July, 6 A.M.—Slept soundly at times during the night, but the vomit-

ing recurs every four or five hours: cramps have been more frequent, but not so violent; occasional hiccough. bowels not yet purged; no tenderness of abdomen; tongue more furred; more thirst; countenance improved; respirations hurried; pulse 108, with more strength; the two last doses were rejected.

Rept. Haust. c. Spt. Ether Nitrosi.

4, P.M.—At one o'clock the medicine was intermitted, because the skin was warm, the pulse was beginning to be sharp, and the tongue was more furred; at three a purgative injection administered; his bowels have not acted; eyes much suffused; countenance less anxious; no vomiting since last report; respiration natural; occasional hiccough; pulse 110, rather sharp; tongue more furred; skin hot.

R Acid Hydrocyan. mʒ.

Magnes. Sulph. ʒj.

Aque, ʒj. ft. haust. stat. som.

This was directed to be repeated every four hours till the bowels were open.

6, P.M.—The pulse became so extremely feeble after the draught, that it was omitted; thirst not so great; hiccough increased; tongue still furred; bowels have not acted; no vomiting; no urine passed. Ten ounces of high-coloured urine drawn off by a catheter.

9, P.M.—Pulse fuller, 106; no vomiting; hiccough very troublesome; bowels not moved; skin warm and moist.

R Sodæ Carb. ʒij.

Mag. Sulph. ʒj.

Aque, ʒviii. M.*

Rept. Inject.

July 8th, 8 A.M.—The hiccough was relieved immediately by the medicine; bowels not open, but there is tenderness of the abdomen; tongue cleaner; pulse 100, not so full; respirations natural; has had cramp once in the thigh; thirst continues; slept pretty well.

R Ol. Ricini.

Ol. Terebinth. aa. ʒss.

Decoct. Duenn. lbj.

Fiat Enema statim ingesendum.

1, P.M.—Bowels moved copiously half an hour ago; evacuation grey, or whey-coloured, mixed with injection; pulse 100, soft; tongue clean; thirst continues; urine passed freely.

On the 10th, his bowels were opened

* It is not stated in the report how this mixture was to be taken.

three times, and bile appeared in the evacuations; he has improved gradually since in every respect, and is now convalescent.

This poor man is indebted very much for his recovery to the skill and attention of Mr. Walsh, the physician's clinical assistant, whose talents and habits of observation cannot fail to make him an ornament to his profession.

GUY'S HOSPITAL.

*Fracture of Leg, with wounded Blood-Vessel—
Ligature of the Femoral Artery—Mortification—Death.*

JOHN BOND, *ætat.* 55, a Bow-Street officer, very stout and muscular, was brought into Guy's hospital, and placed under the care of Mr. Key, on Sunday evening, the 5th of December, 1830. He states, that on getting down from a coach, on which he had returned from Kent, where he had been to apprehend some incendiaries, his foot slipped from the wheel, and he fell with his right leg under him: this happened about eight o'clock. On examination, it was found that both bones of the right leg were broken a little below the knee. The tibia appeared to be splintered, and the fracture to extend into the joint; the lower portion of bone projected upwards and outwards, and the upper inwards and backwards. He complained of great pain, and there was considerable swelling and effusion, but not sufficient to excite suspicion of any vessel of importance being injured. However, on seeing the man an hour afterwards, the tumefaction had much increased; and on making careful examination, a slight pulsation might be felt, especially in the ham: he also complained of the limb, particularly about the foot, feeling cold. The anterior tibial artery pulsated naturally, but the pulsations of the posterior tibial were not nearly so strong. These symptoms led to the suspicion of the posterior tibial artery being wounded. The limb was extended upon a long splint, a bandage passed round to support it, and warm flannels applied to the foot.

12 P.M.—The distention has much increased, extending now above the knee, and half way down the leg; the pulsation is very plain, and may be both seen and felt. Thinking amputation necessary, Mr. Key was sent for, who, when he arrived between one and two o'clock, proposed immediate removal of the limb. To this, however, the man would not consent until after he had seen his wife and son, who could not be with him before next morning. Thirty drops of Tr. Opii were ordered, and he was directed to make up his mind as soon as he could.

6th, Noon.—Has had some sleep, and does not complain of much pain; the distention has increased, and extends to the ankle; pulsation is not so distinct as it was

last night, owing probably to some of the blood having become coagulated; still it may be plainly felt in the ham; the foot, which has been all night enveloped in flannels, is not so cold, and sensation is perfect; the integuments of the leg have a livid hue, and several vesications have appeared.

Amputation was again proposed, and the necessity of it urged, it being pointed out to him that gangrene would in all probability come on if the limb were not removed. Still the man and his friends would not consent to it, earnestly intreating that any chance, however small, might be given for saving the limb. The only thing that could be done was to tie the femoral artery low down; and after a consultation, it being thought this might possibly be successful, Mr. Key proceeded to perform the operation in the usual manner. An incision was made nearly in the course of the outer edge of the sartorius, commencing about the middle of the thigh, and carried downwards and inwards in a line towards the inner condyle; the sartorius was pulled to the inner side of the wound; the sheath of the vessels was divided, and the artery secured just as it penetrates the tendon of the adductor magnus; in doing this considerable difficulty was experienced, the man being stout, and the artery lying very deep, and ceasing to pulsate when exposed. The vessel did not seem healthy, being streaked with black lines; and it was remarked, that probably an earthy deposit had taken place between the coats. As soon as the ligature was tied, pulsation in the tumor ceased.

Towards night he became feverish; pulse rose to 152, very full and strong; tongue dry, head free from pain; distention of leg much the same; vesicles have increased; foot warm, and sensation perfect; leg placed upon a long splint, and supported at the sides by common leg splints.

Tincturæ Opii, *gtt.* xxx. *hora somni.*

7th, A.M.—We were called up between four and five o'clock this morning, as he had taken the splints off the leg, and the plaister from the wound in the thigh, and endeavoured to get out of bed. He appeared to have been asleep, and to have awoken suddenly. He was still rambling, but knew perfectly well what he had done, and said he would not repeat it. Pulse 160, exceedingly full and strong; tongue dry, brown, and wrinkled; bowels not opened.

To take a draught of Sulphate of Magnesia, in Inf. Sennæ, directly; and afterwards, ʒij. of Liq. Ammonia Acet. every four hours.

P.M.—Bowels opened twice; pulse 150; in other respects much the same.

To take Opii, *gr.* iss. Hydr. Submur. *gr.* iij. *h. æ.*

8th, A.M.—Passed a better night; pulse 135, rather sharp, and not so full; tongue

not so dry or wrinkled; bowels opened twice; leg of a darker colour, presents a gangrenous appearance; foot continues natural.

The leg to be floured, and to take Opil, gr. iiss. Hyd. Submur. gr. iiss. h. s.

9th.—Had a tolerably good night; pulse 124, smaller than yesterday; bowels opened; tongue drier; very thirsty; skin moist; head free from pain; sensation and warmth of foot natural. The fluid in the vesicles on the leg is of a dark colour; one of them has given way; the skin underneath looks sloughy; the heat of leg is good; and on the spots where there are no vesications, sensation is perfect. The distention in the ham has disappeared, and the wound in the thigh is healthy.

Repeat Calomel and Opium at bed-time.

10th.—But little sleep; has been during the night delirious, talking a good deal; tongue dry; pulse 116, small and irritable; restless; foot natural; gangrene of leg slowly advances; the part mentioned where the vesication had given way at the side of the leg, has a more sloughy aspect; bowels opened once; towards night his pulse rose to 130, and he again became delirious.

To repeat Calomel and Opium at bed-time. Has taken during the day three-quarters of a pint of ale.

11th, A.M.—No sleep; has been delirious all night; and so restless as to make it necessary to confine him in bed; talks very incoherently this morning; pupils do not act freely; says his head aches; tongue dry, brown, and wrinkled; is thirsty, but refuses to put any thing into his mouth; skin hot; pulse 130, rather fuller than yesterday; bowels not opened; water high coloured; he has disturbed the splints, and in some measure turned the leg round; foot natural; dark colour of leg has extended more towards the knee; there is a great discharge of ill-conditioned pus from the outer side of leg.

Continue the flour, and take Pulv. Rhei. c. Cal. gr. xv. statim.

P.M.—Pulse 148; delirium has continued all day; bowels not opened.

To have a small dose of the house medicine; and after a while, Lij. Opil Sed. gtt. xxv. Vin. Ipecac. gtt. xv. Has had some beef-tea. Ale omitted.

12th, A.M.—Has been quieter, but has had no sleep; bowels opened twice; pulse 144, feeble; delirium continues; pupils sluggish; symptoms more of a typhoid character; is continually picking the bed-clothes, and catching, as though he saw something before him; tongue dry and brown.

Ordered, if more restless, to have half a similar draught to that he took last night.

P.M.—Asleep, which is the first time these two days; has not had the opiate draught; bowels once opened; continually muttering; breathing laborious.

13th, A.M.—Has slept the greater part of the night without taking the sedative; is more sensible, but is evidently sinking; pulse 134, small and weak; tongue very dry and brown; excessively thirsty; the foot continues quite natural, but the superficial gangrene of the leg is still going on slowly; the discharge from the outer side of it is very fetid.

To have some brandy.

P.M.—Has slept the greater part of the day; is now quite sensible, and says he thinks he shall not live through the night; pulse 144, very intermitting; subcutaneous tendinum; feet warm; free from pain; countenance sunken and haggard.

Continue brandy and wine.

14th.—Died this morning at half-past eight o'clock.

The post-mortem examination was not made with so much minuteness as could have been wished, the friends refusing to allow the body to be examined. The limb, however, was opened just so as to permit the large vessels to be taken out. There was a simple fracture of the fibula, with a comminuted one of the tibia, extending in a very oblique direction about three inches below the knee-joint. The articulating surface was broken into four or five pieces. There was also a considerable quantity of partially coagulated blood, mixed with some pus. The gangrene had not extended deeper than the subcutaneous cellular membrane.

On examining the vessels which had been removed, consisting of the popliteal, posterior, and anterior tibial, with the peroneal arteries, no laceration could be discovered in any of them; the hæmorrhage must therefore have arisen from some smaller arterial branch, or from a vein, which probably might have been found, could a more minute examination have been obtained. The femoral artery was removed above the place where the ligature had been applied, and, as had been supposed, a considerable earthy deposit was found between the coats of it. The fact of this deposit having taken place, even could it be known with certainty *a priori*, does not appear to be a serious objection against tying an artery in case of aneurism, as, in this instance, the artery was rendered impervious by its sides being glued together by coagulating lymph, as firmly as usually takes place in the same time when the vessel is quite healthy. N.

NOTICE.

If "A Licentiate," who published a letter about the Examination at Apothecaries' Hall, in our No. for July 2, will favour us with his address, (which we have mislaid) we will transmit to him a confidential communication which has been sent to us.

W. WILSON, Printer, 57, Skinner-Street, London.

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Medicine and the Collateral Sciences.

SATURDAY, JULY 30, 1831.

ON THE UTILITY

OF THE

SULPHATE OF QUININE

In various Inflammatory Affections of the Eye.

By R. MIDDLEMORE, Esq.

Assistant Surgeon to the Birmingham Eye
Infirmary.

It is now more than eighteen months since I first published my opinions on the mischievous tendency of bleeding and mercury in certain cases of strumous iritis, and the utility of the sulphate of quinine in many instances, where the former plan of treatment had sometimes merely slightly relieved for a temporary season, and in other instances aggravated and confirmed the disease it was intended to remove; and, as an increased conviction of the advantages of the method of treatment then recommended has resulted from an enlarged acquaintance with its efficacy, I am induced to believe that a few additional illustrations of its utility may not be altogether uninteresting. And I am the more disposed to introduce the product of my experience to the notice of the profession, because an admirable writer on diseases of the eye, Mr. Mackenzie, has recently recommended, in strong terms, that plan of treatment which it was one object of my former communication to condemn. The improved method of treatment I am proceeding to advocate, is not, however, recommended to the absolute exclusion of bleeding, and mercury administered to the production of salivation, although, it is presumed they (bleeding and mercury) may be most profitably superseded, in

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at least seven cases out of ten by its early adoption. I call it an improved mode of treating strumous diseases of the eye, for, although the administration of bark in various forms has been long since recommended for the same purpose, the quinine will often effect a cure where the bark, either given in the form of powder, extract, or tincture, has failed to relieve, much less to cure; and farther, because, although a tonic, it possesses advantages which are not possessed by any other tonic, at least to the same extent, for, in many instances of the disease to which I am now referring, where the employment of various tonics has not been succeeded by benefit, the administration of quinine has speedily effected a cure.

There are certain states of strumous disease of the eye, occurring in a certain class of scrofulous children, to which the sulphate of quinine is peculiarly well adapted, and I shall briefly enumerate those constitutional characters, or general symptoms, which, although frequently connected with, are, however, neither peculiar to any particular class of strumous subjects, nor necessarily and invariably associated with any given form of ophthalmic affection, (as relates to the texture involved) occurring in a strumous individual. General characters:—skin harsh and dry; complexion pale and sallow, or tinted and transparent; muscular structure loose and flabby; strength impaired; and system generally attenuated. These are, professedly, but the outlines of their general characters, and I have preferred to mention them rather than have recourse to the more ordinary mode of distinguishing strumous subjects, because they apply equally well

2 N

to the lively and irritable, the dull and heavy, and the intermediate class into which scrofulous children are usually divided, whenever those changes in the general health occur, which permit and decide the continuance of strumous inflammation of the eye. The question under such circumstances is not, in any particular case, to which class did the patient originally belong, but, what is his present condition?

It is not probable that any one can have paid much attention to the physical characters of those children in whom scrofulous diseases of the eye occur, nor have witnessed the various morbid changes with which these ophthalmic affections are usually associated, without detecting the general accuracy of Professor Beer's classification of strumous subjects; although it must be allowed that, if the majority of such patients can be arranged under his two more important classes, there is also noticed every possible gradation: from the one extreme to the other, in which the type of neither is perfectly preserved, and which are only presumed to be connected with a strumous condition of the constitution, by the obstinate rather than the acute nature of the inflammatory affection of the eye, and by the existence of a much greater degree of photophobia than is usually associated with an equal amount of common inflammation of that organ. Now, these two circumstances, viz. the obstinacy rather than the intensity of the inflammation, and the great degree of photophobia, compared with the trifling amount of inflammation actually present, are of the highest value as a means of diagnosis; and I am disposed to regard them as particularly important, not only in deciding the name of the disease, but sometimes also in determining the particular treatment it may be necessary to adopt for its cure: for instance, a child of a strumous habit, with enlarged glands, thickened lip, and the other characters of struma pretty clearly developed, may never have had an attack of ophthalmia, but, in consequence of receiving a blow upon the eye, or, from some similar cause, that organ may become inflamed, and may pass through the same course, as traumatic ophthalmia occurring in a perfectly healthy child. Again, children who are apparently quite destitute of all the more ordinary characters of struma, may be-

come the subjects of ophthalmia, which may be as obstinate in duration, and combined with as much intolerance of light, as commonly occur where the local indications and constitutional evidences of struma are fully and perfectly developed.

I know that it is always right in deciding upon the nature of this class of ophthalmic affections to take the history of the case, and the constitutional as well as the local symptoms into consideration; but there are instances in which an implicit deference to constitutional symptoms may actually mislead; such, for example, as some cases of traumatic ophthalmia occurring in strumous children, where the textures of the eye, from a variety of causes, are not willing to permit the modification of their inflammation, produced by the actual agency of the strumous principle, when exerting its influence in modifying the inflammatory condition of the same textures in other instances, in which it is ascertained (by its effects) to be in operation. Although I have many times witnessed such cases, cases where, in addition to a strumous history, the physical characters and many of the local evidences of struma were present, in children, who, having received an injury to the eye which has given rise to an attack of ophthalmia, has afterwards passed through its various stages, uninfluenced and unmodified by the strumous condition of the constitution, I have also noticed other instances, where neither the physical characters nor the local evidences of struma were present, in children, who have notwithstanding suffered from an attack of ophthalmia or iritis, which, had the same description of inflammation occurred in strumous children—children in whom the indications of scrofula were well and distinctly marked—would at once have been considered as the result of the modifying influence of struma.

Now, these facts establish, not merely the existence of exceptions to important general rules, but, what I am more desirous of maintaining, the necessity of a local as well as a constitutional aptitude for the admission of the modifying influence of struma in ophthalmic affections generally. I cannot trace the process by which the strumous principle effects its morbid operations upon any part of the system, upon which it may concentrate its action, nor can I explain

the reason of its selecting one or other texture for its specific seat in preference to other parts of the system into the composition of which the same textures enter in equal, and perhaps greater abundance; but, with these facts before me, it is impossible to deny the necessity of the existence of that local aptitude for the reception of strumous action to which I have just adverted. What are the tests for distinguishing scrofulous from simple disease in those doubtful cases, where the aggregation of its more ordinary symptoms is wanting*? We are, in fact, in possession of none sufficiently precise to constitute a satisfactory reply to my present inquiry; and it was from the conviction of a similar confusion existing with regard to the tests of chancre, that John Hunter was tempted to lay down that absurd rule respecting its curability by mercury, which misled (though only for a certain period) those who trusted to the opinions of that great man with a firmness of faith which paralysed individual investigation. A forcible illustration of the existence of a great degree of confusion with regard to the diagnosis of scrofula, is contained in a very common and frequent opinion derived from the nature of the contents of a chronic abscess. If the qualities of the discharged matter are consistent with the recognized definition of healthy pus, it is called a true phlegmonous abscess; but if the matter be curdled and flaky, it is termed a scrofulous abscess. Are we, indeed, compelled to have recourse to such a mode of determining the nature of a disease? Are there no circumstances, independently of struma, capable of rendering the contents of a chronic abscess curdled and flaky from the aggregation and consolidation of its albuminous particles? Leaving, however, the investigation of this part of the subject, I return to the more immediate object of my present communication; and, as regards the kind of cases to which the administration of quinine is

peculiarly well adapted, I may enumerate the following:—Strumous ophthalmia, either with or without ulceration of the cornea; strumous inflammation of the cornea, either with or without lymphatic deposition between its lamellæ, or ulceration; strumous iritis; strumous inflammation of the membrane of the aqueous humour, and strumous photophobia merely. I will venture to assert, with an assured confidence of accuracy, that if strumous inflammation of any of the textures just enumerated exists, in connexion with some or all of the characters previously mentioned, whether those characters have preceded the establishment of disease in the eye or have been produced either by its long continuance or the employment of mercurial or other medicines for its removal, the use of quinine will promptly effect a beneficial change in the state of the eye, which will also be, in the general, coeval and co-equal with that of the constitution. Let me not be understood to say, that quinine is a suitable and certain remedy for the various forms of strumous inflammation of the eye under all circumstances; for I have expressly restricted its administration to a particular condition of the system, which, although generally, is by no means invariably co-existent with its (the strumous inflammation of the eye) development; but, certainly, if any medicine can be considered in the general as a remedy for scrofulous inflammation of the various textures of the eye, on account of the extent of its applicability and the promptitude and permanence of the benefit it confers, quinine is far better entitled to such an appellation than any other with which we are at present acquainted.

If a child has been under treatment for strumous disease of the eye for a long time, without deriving any benefit from a due degree of perseverance in the use of remedies apparently well adapted to the case, I should strongly recommend a trial of quinine, even though the absence of positive debility may not appear to call for such a mode of management; whilst the existence of enlarged glands, thickened lip, &c. combined with a ruddy complexion, may rather point out the propriety of inducing slight mercurial action; and this opinion is formed after having had repeated opportunities of curing patients so affected by the exhibition of quinine,

* I allude to scrofulous disease in general; for strumous disease of the eye is sufficiently distinguished by the age of the patient in whom it occurs, the obstinacy of its duration, the excessive degree of photophobia with which it is attended, the slight amount of visible inflammation which is generally present, the profuseness of the lachrymation with which it is usually associated, in addition to the information derived from the history of the case, and the physical characters of the patient.

who have been previously subjected, at my own recommendation, to other modes of treatment, from a conviction of the unsuitableness of quinine. The following case was the first which particularly urged this fact upon my attention.

A strong child, born of scrofulous parents, with a florid complexion, and black hair and eyes, had enlargement of the cervical glands, with thickening of the upper lip, and had formerly suffered from scrofulous disease of the finger-joint, which had greatly disfigured the hand. The eyes subsequently became inflamed, and when I first saw him he was suffering from strumous ophthalmia merely. As the child was particularly hearty and strong, I directed him to take eight grains of the hydrargyrus cum creta, with a few grains of rhubarb every morning, and twelve drops of the liquor potassæ, in a little water, three times daily; and to apply a small blister to the back of the neck. After due perseverance in this plan of treatment without benefit—indeed, so far from producing any improvement, the disease had actually extended to the cornea—I placed his system under the decided influence of mercury, with no better success. Without any sanguine expectation of advantage, I then prescribed the quinine, which I had not at that time used very extensively in ophthalmic affections (for this case occurred two years ago), and in the course of a few weeks my little patient was perfectly cured. The other important fact which this case also assisted in confirming, was the non-occurrence of the disease at any subsequent period; for, although relapses of strumous disease of the eye are extremely frequent after the ordinary modes of cure, and particularly when accomplished by the aid of mercury and venesection, they are, as far as my experience has hitherto extended, exceedingly rare after the cure has been effected by the agency of the sulphate of quinine.

The following case will more fully illustrate my views, and at the same time point out the various measures it may be expedient or necessary to adopt, prior to, or during the administration of quinine.

Miss Sprigg, æt. 14, a feeble delicate girl, has had several attacks of strumous ophthalmia, and one of strumous iritis, which have always been subdued by the administration of

mercury, and by the application of leeches and blisters, but generally recurred on the slightest derangement of health, or exposure to cold, soon after the inflammatory affection had been removed; but every successive attack of inflammation was more obstinate than the one immediately preceding; the health also became impaired, the strength much diminished, the system greatly attenuated, and the complexion pale and sallow. On the occurrence of another seizure, I prescribed the sulphate of quinine in the following doses, after having previously relaxed the bowels by a mild aperient:—

R Quin. Sulph. ℥j. Syrup. Cort. Aurantii,
℥ss. Infus. Rosæ, ʒviiss. M. ft. mis-
tura cujus sumat. Coch. ij. bis in die.

I also placed a small issue in the arm, and directed an occasional dose of senna infusion to be taken in the morning. Under this treatment the inflammatory affection of the eye was removed much more speedily than on former occasions; but what is of great importance to notice, the health and strength also improved, contrary to what had occurred under the modes of treatment formerly employed, and she has never had any ophthalmic affection since that period. When we contrast the speed and permanence of the cure, with the improved condition of the general health, procured by the administration of quinine, with the very tardy and temporary recovery, and shattered state of the system produced by the employment of hydrargyrus and leeches, the advantages of the method of cure I am now advocating will be conspicuously evident.

Strumous Iritis and Corneitis.—Reuben Pears, æt. 10, a pale delicate child, has an attack of strumous inflammation of the conjunctiva, which has extended to the cornea and iris. Characters of the disease when I first saw him, on the 25th of June:—In addition to the ordinary local characters of strumous iritis combined with corneitis, there was a tendency to incurvation of the tarsal cartilages, from the constant and violent action of the orbicularis muscles; the corrugator and orbicularis muscles were unusually strong and prominent; the eye-lashes were extremely long, numerous, and thick*, and so great was

* This appears to be one of the very many means employed by nature for the purpose of pro-

the intolerance of light, that although the child had a linen bandage before the eyes, and, over that, a broad green shade, he constantly hung down the head and concealed his face in his mother's lap, or covered it with a pillow during the whole of the day. The slightest attempt at examining the eyes was followed by extreme spasm of the muscles of the eye-ball and lids, profuse lachrymation, and the most violent sneezing. In addition to these emphatic characters of strumous disease of the eye, his countenance was pale, his body emaciated, and his strength so much prostrated that his mother was obliged to carry him from the carriage in which he was wheeled to the door, into my house, when he first came to see me; indeed I have rarely seen a more perfect specimen of debility and emaciation than this poor fellow exhibited at the period to which I allude. He had been under the care of Dr. Darwall, for several weeks, without deriving any benefit; indeed, his strength and power of vision had both declined whilst under his superintendence*. The month had been slightly affected for some time by the calomel, which he had been taking in combination with Dover's powder; and as I have before stated, his strength had declined, whilst the inflammation of the eye had rather increased under the mercurial influence.

Having accidentally seen the patient at Dr. Darwall's, and having stated how very speedily the child might be relieved, he requested me to take the patient under my care; when the condition of the eye, and state of the health, were such as have been already described. I immediately prescribed the following mixture, (directing the child's mother to administer a little aperient medicine

before commencing with the quinine,) and placed a small issue in the arm; in consequence of which I had the great satisfaction of witnessing a most decidedly favourable alteration in the state of the eye, and also in the condition of the general health, in a few days after my plan of treatment had been adopted. Although a fortnight only has elapsed since this patient was placed under my care, the power of vision is in a great measure restored, the child is enabled to face the light without suffering more than a slight degree of inconvenience, and the strength and appetite are most rapidly improving. He now walks from his own home to my house, and back again, (a distance of a mile) without the least assistance.

Mixture prescribed for Reuben Pears—

R Quinina Sulph. gr. xij.
Syrup. Cort. Aurantii, ℥ss.
Infus. Rosæ, ℥viiss. Misce. Sumat.
Coch. Ampl. ter die.

If time would have permitted, it was my intention to have related one or two other cases, with a view of pointing out those examples of strumous disease of the eye, occurring in a certain class of scrofulous children, which are more promptly and properly cured by other modes of treatment; some of which, indeed, would be rendered worse, rather than amended, by the administration of quinine, inasmuch as the delay would have permitted the extension, and confirmed the inveteracy of the inflammation: the fulfilment of this intention, however, I am compelled to defer.

ON INDEPENDENT ACTION OF THE ARTERIES.

By DAVID BADHAM, M.B. OXON.

pecting the retina of strumous children from the influence of vivid light. I have generally remarked this increase in the length, thickness, and number of the eye-lashes in strumous children who have suffered much from photophobia, and in many instances their direction is so changed, that they are interwoven, as it were, one with another, or so much curved outwards, that their points have actually been in contact with the integuments of the eye-lids posterior to their bulbs, each eye-lash forming in effect a double one, and powerfully contributing, in connexion with their various other qualities, to exclude an offensive amount of light.

* I esteem it no unimportant argument in support of my declaration of the advantages of the treatment it has been the chief object of this paper to explain and defend, that it has enabled me to cure, without difficulty or delay, a disease which had withstood, if not defied, the skill of so excellent a physician as my friend Dr. D.

THE object of the present communication is, to support, on further evidence, the existence of "independent arterial action," and to give a rapid sketch of those pathological consequences which appear explicable on such an admission, and inexplicable without it. I have already attempted, in a paper published lately in the Medical Gazette, to show that mere elasticity of the arterial tree,

however necessary an agent it may be presumed to be in the circulation of the blood, is not of itself sufficient to explain any of the following phenomena, for the production of which nothing short of an additional independent action could possibly account:—1. Hypertrophy of the left ventricle with a weak pulse*. 2. Dilatation of the same ventricle with a strong pulse. Both are morbid phenomena actually ascertained, and both are anomalous, on the supposition of a force communicated by the heart exclusively. 3. Want of correspondence between the relative forces of the pulse at the wrist and the heart's impulse. 4. Occasional difference between the pulse as felt at the two wrists. 5. Regularity of arterial pulse, with irregularity and increased frequency of the heart's contractions; as where the first is 50, and the latter averages 100 in a minute. 6. The entire cessation of pulse at the wrist, while the heart continues its function; a case in which the arteries cannot be said to be dependent for their action upon any action of that organ. 7. Parry ascertained by experiment, that arteries contract on abstracting a portion of their contained fluid, that is, by the action of muscular fibre, since he also found that such arteries recover their natural diameter; in other words, that when the vitality of the muscular fibre, in which the contractile action resided, was destroyed, the antagonist force of elasticity prevailed, and was the only remaining force. 8. Unless such a power as is understood by Parry in the term "tonicity" be granted, the course of the arterial current must be, not the uniform stream without a pause, which it actually is, but interrupted, as it has been well observed by Beclard. 9. Although there be nothing corroborative of this view in such cases of paralysis as exhibit normal arterial action, (to illustrate which we may call to our recollection the experiment of Monro, who, having rendered a limb paralytic by the division of the sciatic nerve, and having fractured the bone, found that arterial

action capable of resuming it by callus was nevertheless continued,) yet that increased arterial action should sometimes accompany a paralysed extremity surely proves more: it proves the activity of these vessels to have been quite independent of the heart:—as to the fact, I have recorded two such cases in a recent number of the Gazette. 10. All those cases, where, there being no reason for supposing impeded circulation, the pulse of one extremity becomes totally suspended, while that of the other continues. 11. Cases in which we find the heart, together with the major part of the arterial system, pulsating at the rate of 90 per minute, and the pulse at another part of the system no more than 44 in the same time. I shall soon have occasion to cite such cases with their authorities. To those who deny the existence of an independent power inherent in the artery, they are *prima facie* impossible: to those who believe in the doctrine, and who follow it out by reflection, such phenomena are probable enough, even without instances, and I may mention, (though, perhaps, it is rather more interesting for me to remember, than for others to learn,) that such consideration led me to put down as a query, what I have since decidedly ascertained as a fact, that the frequency of cardiac and arterial pulse is not always the same. 12. We cannot account upon any other supposition for the fact of monsters arriving at the full period of utero gestation without any heart; as the circulation here must have been carried on independently of the bloodvessels. 13. A leg is sometimes removed without loss of blood, though large vessels are cut through, and the circulation vigorous—a fact which Dr. Hastings advances in proof of the elasticity of the artery, but which I should rather adduce in demonstration of a muscular power, which does not follow a general law, than an elastic one, which does. Lastly, can local inflammation be explained upon any other principle?

Perhaps enough has been said to make it extremely difficult to deny "that there is an independent action exercised by the muscular coat of the arteries; nor can the 10th and 11th of the above heads be entertained without considering pulse as the consequence, and muscular action of the artery as the cause; that is, I conceive we should not feel the pulse,

* I may here mention that I use the words "pulse" and independent arterial action indifferently, though not as perfect synonyms. I have no occasion at present to meet this much controverted point, because it will, I think, hereafter appear, that, in maintaining the independence of arterial action, some of the facts cited for this purpose are equally decisive in shewing that the pulse is produced by the succession of an elastic to a muscular power.

even though the circulation were kept up, unless by the recovery of the artery contracted, by virtue of its muscular power "within its natural diameter"—(Parry.) Wherever, therefore, in health or in disease, the actions of the heart and arteries cease to bear the usual ratio to each other, in the force and frequency of their contractions, there we have a distinct proof of the independence of the actions of each: cardiac and arterial action are never linked together as cause and effect, but the latter is generally regulated by so intimate a sympathy with that of the former, that they appear to be but different parts of one and the same action. It is this beautiful regularity and reciprocity so commonly subsisting between the two impelling forces that has caused many to overlook, and others to deny, a fact rigorously ascertained, of the occasional want of correspondence in the force and frequency of their respective contractions.

In healthy and imperturbed states of the system, the conjoined forces of the heart and arteries give a momentum to the blood, capable of propelling it through the minuter branches of the arterial tree; one of these may be occasionally stronger and the other weaker, provided that the sum of the two forces remains the same*. A beautiful result seems to be procured out of the very independence with which, I conceive, the heart and arteries act, and the well-being and perfection of the machine, by which it defends itself against disturbing causes, seem to be effected. In old age we often find the action of the heart weak, while the pulse is preternaturally strong: with some patholo-

* Dr. Marshall Hall seems to have said, may I venture to remark, somewhat inadvertently, in his admirable work on the Effects of the Loss of Blood, "that syncope is readily induced by abstraction of the vital fluid in fever, because the heart and large arteries are alone over-active, the capillary system remaining unaffected." Now I cannot conceive how capillary circulation can remain unaffected if both the forces of the heart and arteries are increased; surely such an exaggeration in the sum of these forces must tend to propel the blood further, and produce an unnatural plenitude of the extreme vessels; for what adequate resistance could this slender set of tubes make to the increased momentum of the heart and greater arteries conjoined? But my supposition is, that wherever the capillary circulation is natural, there the sum of the propelling forces of the heart and arteries will be normal: the arteries may, indeed, act more powerfully, but then the heart must act more feebly, or vice versa; else the capillary vessels must be forcibly injected, and the circulation in them become abnormal.

gists this is the evidence of functional or structural disease; to me, it appears in the light of an accommodating process; the heart acts feebly; the equilibrium of the circulation is in jeopardy; the arteries rescue it from that jeopardy; they make up for the deficient energy of the heart. This equilibrium is also disturbed in various diseases in various ways: the sum of the forces of the heart and arteries may become too great by the increased action of one or both; may become inadequate by the diminished action of one or both: the peril will be proportionate to the extent and the seat of such affections: in short, when we consider "that arteries terminate in such various ways; that some become exhalents, some lead into veins, some into absorbents, and others into secreting glands, we shall not be surprised at the variety of diseases which may arise from different modifications of arterial action, according to the structures to which they are subservient. It is on all hands admitted that all muscular fibre is liable to states of exertion which admit of much variety; that it may be over actively excited, as in violent exertion; or languidly exercised, as in cachectic diseases; or spasmodically, as in tetanus; or quite lose its tonicity, as in paralysis; nor can it be in dispute that any such affection may be partial, and may visit involuntary as well as voluntary muscles: the heart in palpitation is clearly acting with more than natural vigour; in *mollities cordis* (Laennec) with less. The same is true of the stomach, the intestines, the bladder; and accordingly such diseases of function are frequently described by pathologists; how then has it happened that the muscular coat of the artery, subject to precisely the same affections (because it is muscular), from nervous influence, has been overlooked, or so little investigated? No author that I am acquainted with has considered that many diseases, and death itself, may arise from diseased arterial action; that is, from a lesion of the function as certainly as from those lesions of the structure of these vessels, which have been so well ascertained. Thus I propose to admit as a direct pathological cause the diseased exercise of arterial action, whether by increase, decrease, spasm, or paralysis of the living vessel, that is, of its muscular coat; whereas, the common pathology seems to confine our consideration to congestion or in-

flammation as the only functional disease of the arterial system:—throughout this paper, therefore, it will be found that I have selected as illustrations those diseases which do not belong to the order of "phlegmasiæ," because in such cases the display of the independency of arterial action is as apparent and more simple from being unaccompanied with inflammatory diathesis.

A diseased function of arteries will, no doubt, sometimes involve various organs of the economy by nervous sympathy—that is, by identity of nervous communications; which organs, thus involved, may become the seats of various affections, of which the symptoms may be very obscure, or declared on very distant parts of the organization; but at present, and not to prolong this paper more than seems absolutely necessary for expressing my views intelligibly, I shall not enter upon any other than direct and immediate results of the functional disturbance of arteries.

I propose, then, to consider the arterial system generally, or some of its branches*, under the state, first, of

* I say some of the branches, because I think an independent power is frequently manifested only in a part; nor is there any thing *a priori* unlikely in this as a supposition. We see partial affections in the exercise of muscular action in different parts of the body; why not expect it in the arteries? I have lately seen a case where the pulse (that is, where arterial action) was imperceptible on one side, and natural on the other. A young married lady was seized suddenly, while playing on the guitar, with a feeling of burning at the extremities of the fingers of the left hand, accompanied with a numbness of that hand, which soon disappeared. Shortly after, she was awakened in the night by an agonising pain up the left arm, which, on attempting to move, she found quite dead. Great as was the pain in the extremity, no external pressure could be perceived by her; the pulse at the wrist was quite gone, nor can it ever since be detected even in the axilla. The arm has lost some of its temperature; it has become emaciated considerably; dry gangrene appeared at the ends of the fingers, which peeled off by degrees. These remarkable phenomena occurred nearly two years ago: the general functions of the body are so little impaired that in this interval she has been pregnant. The arm is now quite as sensible as it ever was, and she has a free but feeble possession of it: it is considerably less in the span than that on the opposite side; but no pulse, no arterial action, have ever returned. Yet the circulation is certainly going on, and, upon asking the lady to let the arm hang down, the veins instantly become turgid. Does it not result from this statement, first, that there may be a partial suppression of arterial action? Secondly, that the arterial pulse is not produced by the distention of the elastic coat of an artery by the ingress of fresh blood, but is the consequence of an artery contracted within its natural diameter by its muscular coat, suddenly regaining its natural diameter by means of its elastic one. A woman came under the care of Zimmerman, in whom the pulse at one

spasm. This modification of independent arterial action, as I have endeavoured to shew in a former paper, seems to offer an easy, and indeed the only satisfactory explanation that can be given to the want of correspondence occasionally observed between the rhythm force or frequency of cardiac and arterial systole. I have attempted to shew (vide Med. Gaz. June 18), how palpitation owes its existence to this state of the larger branches of the arterial system, and that many cases of hypertrophied and dilated heart, and perhaps not a few cases of arterial aneurism, own, for their producing cause, a frequently recurring spasm of the arteries; which, as a disease of function in the subordinate organs of circulation, must come, in time, to produce a disease of structure of the principal one. Several pathological consequences seem to follow, which are not to be explained upon any other principle. For instance, an inflamed gland does not secrete; not surely, as Mr. Lawrence justly observes, because there is a spasm of the capillaries, but, as I presume, from a spasm of the great arteries, which keeps back the blood, and so withholds the very pelulum of secretion. Sudden effusion into a glandular structure (which the distinguished writer just quoted thinks, as it certainly is, inexplicable on the supposition of a "spasm of capillaries"), together with turgescence in the neighbouring veins, are they not sufficiently consistent with, and explicable by a spasmodic constriction of the leading vessels? To say with Mr. Lawrence that the capillaries are thrown into "an unnatural state," is no explanation; while to suppose effusion the immediate consequence of a spasm, which impels the blood in the arteries too far, and to attribute the turgid condition of the veins to the diminished capacity of the arteries (which thus, resisting the free evacuation of the left side of the heart, diminish the receptive function of the right), are, I think, not unwarrantable inferences, while they are, at the same time, adequate interpretations. Nor are certain anomalous cases of vertigo and apoplexy inexplicable on the assumption of arterial

wrist, and the heart itself, beat at the rate of 44 per minute, while the pulsations at the other wrist were 90 in the same time: one such fact is sufficient to disprove the common theory of pulse, for it was not one of those cases where a mistake from inadvertence was possible.

spasm; an insufficient quantity of blood sent to the head, or that blood improperly oxygenated, produces vertigo; a narrowing of the capacity of the conveying arteries by spasm will produce both; and as to apoplexy, if the capacity of the arteries be diminished, that of the veins must be increased—hence an apoplexy of turgescence without rupture.

I would next call the reader's attention to a state of arterial action, where its energy seems generally increased. Arterial action in excess may, I suppose, be either of an inflammatory character or not, and hence the diseases originating out of it may be different. If I were desired to mention diseases which certainly do not always belong to the order of "phlegmasiæ," under which they have been arranged, and in which, notwithstanding, I suppose an excess of arterial action to be manifested; after stating my general persuasion, "that all such diseases as are marked during life by a morbid increase of secretion, or signalled by effusion, without excitement of the heart, and which leave no adaveric traces '*du travail inflammatoire*,' can only have for their proximate cause an increased action either of the arteries generally, or of considerable portions of them, and not of the capillaries only of the part*, I should be disposed to select, in the first place, bronchitis. In many varieties of this disease, notwithstanding the general accuracy as well as the currency of the name (first imposed by my father), there are often no symptoms whatever of inflammation during life, nor do the most rigorous post-mortem inspections frequently shew any trace of it."—*Andral*. The pulse in chronic bronchitis is remarked to be generally moderate, sometimes natural, and life seems at last to be extinguished by the vast quantity of secreted mucus which accumulates in the bronchi, and presents an insurmountable obstacle to the decarbonization of the blood†. There must evidently be

increased action of the larger and leading arteries to account for increase of secretion; mere secreting extremities could not, by merely augmented activity, produce a large and continued secretion, without an increased demand for blood from the nourishing, or non-secreting vessels. That the pulse at the wrist should be normal, and yet the arterial action at the lungs increased, is not, as I have elsewhere remarked, an improbable assumption even *à priori*®.

2. Diabetes does not now pass for an inflammatory disease: not only after death is the kidney found, in most instances, healthy, but the general circulation during life is sometimes very little excited. The enormous secretion of urine does not arise from any thing analogous to inflammation of the gland, since inflamed glands do not secrete at all, or secrete languidly; we must therefore revert to increased action of the renal arteries, not merely of their capillary terminations, which would be inadequate for the purpose (even were such a limitation conceivable), unless in concurrence with an increase of blood, the element out of which all secretions indifferently are formed, which implies, of course, increased energy of the leading arterial branches. I reason in a similar manner as to many dropsies, call them inflammatory or not, which appear to me to own no other assignable cause than an "increase of arterial action." I judge similarly of certain chronic diarrhoeas—in short, of all permanently morbid increments of natural, or continued production of unnatural secretions. In many of these cases there is so certainly no inflammation, that we administer tonics with decided advantage to the patient. (*Billiard Sur la Membrane Muqueuse, and Andral, passim.*) 3. Certain cases of insanity, which perhaps owe their existence to overaction of the vessels of the head. When treating on the pathology of this set of dis-

devons accepter comme un fait, et qu'il ne faut pas surtout confondre avec inflammation.—(*Andral*). The last member of this sentence is exceedingly just; as to "le mécanisme et la cause prochaine," I attempt to explain these in the text.

® It is well observed by Lawrence, "that sympathetic constitutional disturbance is not a necessary consequence even of inflammation: that is, the whole arterial system does not necessarily increase in energy of action by the inflammation of a part; *à fortiori*, it is unnecessary that increased action of a system of vessels, short of inflammation, should occasion an increase of action in the arterial tree generally."

* For wherever the sum of the two forces of the heart and arteries is greater than normal, here we must have effusion; it being idle to invest the capillaries with a force at all adequate to arrest the increased momentum of the blood as it urged into them from behind.

† Ne faut-il pas reconnaître ici une autre espèce de travail de la nature, semblable, par exemple, à celui qui produit la sueur? C'est une sorte de mouvement fonctionnaire dont nous sommes loin sans doute de reconnaître le mécanisme et la cause prochaine, mais que nous

cases, Dr. O'Halloran objects to increased circulation of blood through the vessels of the head, as not invariably present, or not sufficient when present, to the phenomena; his objection is chiefly grounded on the fact, that he has seen mania entirely independent of increased action of the heart and arteries (how strangely universal is the connexion of these words together), and because unusual violence in the circulation is not generally followed by mania; but these expressions are at least inexact, for how did Dr. O'Halloran know, first, that when the heart acted violently, and the parts of the arterial system under his observation were sensibly excited, that therefore the vessels of the head were also acting violently? while, in the instances in which the heart did act violently, and no mania succeeded, it by no means follows that the arteries were so acting; on the contrary, on my hypothesis, they may have been acting with diminished vigour, and thus have preserved the regularity of current with which the blood, in a state of health, is transmitted through the head.

If it shall have appeared probable that the two modifications of arterial action, "spasm," and "increased energy of contraction," may claim consideration as morbid causes, it will also be no untenable speculation, that the function of arteries may be wholly suspended by a sort of palsy (I use an expression which I believe to be exact); certain diseases, at least, evidently depend on a diminution of the forces which circulate the blood; and as, in fact, all muscles, and all muscular structures, are liable to lose their power, become paralysed (the heart, the intestines, the stomach, the bladder, as well as the muscular instruments of voluntary motion), why hesitate to believe that the same may obtain in the instruments of arterial circulation which is performed by muscular agency? But the case of the young lady alluded to in the note, who had no pulse on one side, makes theory unnecessary. The phenomenon could only have arisen from one of two causes, either a mechanical obstruction to the course of the blood from above, or a palsy of the function that occasions pulse—a paralysis of that "independent arterial action" upon which the pulse depends. The first supposition is inadmissible, inasmuch as the circulation is evidently going on, and is attended with the sen-

sibility and other marks of the vitality of the part; but the vascular organization would appear to be the limited seat of an affection which I know not how to distinguish by any other term than that of paralysis.

I might readily pursue the subject into more remote consequences. Enough may have been said to invite reflection on the necessity of admitting into our physiology, arterial action exercised independently of the heart; and into our pathology, its modifying influence in disease.

On the existence of such a power, certainly not gratuitously assumed, unless the reader can explain the numerous propositions submitted to him at the commencement of the essay, without it, I would also attempt to meet a difficulty which has of late gained much attention, and concerning which there is still, I conceive, some room for speculation: I allude to the question concerning the coincidence of the pulse at the wrist with the impulse at the chest. In Dr. Hayercraft's ingenious paper, published in the penultimate number of the *Medical Gazette*, that gentleman most clearly shews that the old theory, which supposed the radial pulse and the heart's pulsations to result from one identical cause—the systole of the left ventricle—is erroneous. I perfectly agree, too, with Dr. Haycraft in rejecting Dr. Elliotson's attempt to reconcile the want of synchronism between the two on the supposition that they have a common origin, but that an interval of time must be allowed for the perception of a common effect; for the difficulty is not evaded by remarking on the distance of the radial artery from the heart; the fluid contained by the full arteries, which is the medium by which the heart's force is communicated to them, is nearly incompressible, so that the force itself must be propagated with almost infinite velocity. I quite agree, too, with Dr. Haycraft as to the inconclusiveness of Mr. Spittal's experiment of the injection of the aorta. That vessel could only, as the former gentleman remarks, have been seen and felt to pulsate because it had discharging orifices, and was therefore not full; while the arteries in the living body have no such discharging orifices, and are full. In believing the heart's impulse and the arterial pulse to be generally asynchronous, I further agree with him, but I do not

believe the impulse felt at the side to be produced by the rush of blood into the dilating ventricle, as he supposes, because I do not hold with the generality of physiologists that the pulse is caused by the systole of the ventricle. Having lately happened to notice, with some attention, the motions in the heart of the common snake, (which beats for hours after cutting off its head) while it was still beating at the rate of from twelve to fourteen beats a minute, it was impossible not to see that the systole of the ventricle was the precise moment when the heart began to project its apex, and force it towards the artillages of the ribs. I consider, therefore, on the evidence of sight, with the old theory, that the impulse which is felt at the chest is produced by the systole of the ventricle, and not by its diastole, as Dr. Haycraft contends. But I certainly do not believe the pulse, as I have elsewhere stated, to be caused by distention of the artery with blood. I hold it to be quite independent of the systole of the ventricle for a proximate cause. A slight dilatation of vessels is, perhaps, the immediate result of such systole, which urges air incompressible fluid into elastic tubes: then, sooner or later, (for I cannot conceive it is the cause of distention that always determines the time when) the muscular and independent power of these tubes causes them to contract upon the injected fluid, after which, of course, they relax; and then, by the act of suddenly recovering their natural calibre, produce the ictus which we call pulse. Of these processes, if they always succeeded in the order that has been put down, the first and last, of course, could not be synchronous; but as sometimes, though not generally, the two ictus are synchronous, explain the cases where they are so by an act of independent contraction, which does not require, though it usually concurs with the reception of the impelled blood; in proof of which we may adduce the common occurrence of a feeble circulation with a frequent pulse: here the feebleness, which plainly indicates imperfect distention, leaves the contractile action to be accounted for by some other stimulus. By assuming the independent action of arteries, we may also understand how, occasionally, the more distant arteries will beat asynchronously with the nearer ones, and *vice versa*; and how "the pulsation in some

morbid part will vary in force, rhythm, and, what is more remarkable, in frequency also, from the rest of the arterial system; "but none of these variations," continues Dr. Haycraft, "ought to be adduced for the purpose of establishing the laws of the arterial pulse in the healthy state." I cannot agree with him: if we do not explain these things upon the supposition I have already made, of an independent arterial action, no other supposition will account for them: if we do not admit this power, then a slight irregularity of its action will remove all the apparent anomalies: they are but different modifications of it at different parts of the arterial system. Two cases are mentioned by the same gentleman of double pulsation of the carotids, where, on applying the finger, the proper stroke of the pulse was not felt till after the visible pulsation had ceased: "if the fingers are pressed on the heaving arteries, they are raised up with some force; and when this heaving is completed, the stroke of the pulse is felt; which stroke of the pulse at the innominate is distinctly felt after the stroke at the chest, and is perfectly coincident with the pulse at the wrist." The heaving—I take to be the dilatation of the artery—the immediate result of the distention of the elastic coat by the systole of the ventricles, which urges the blood into it. The pulse in this case comes afterwards—that is, cannot be felt till the artery having contracted upon the blood, is suddenly restored to its natural diameter by its elasticity.

I have said nothing in this paper respecting inflammation: let it suffice for the present to observe that I consider the proximate cause—whatever that proximate cause may be—of this mysterious and hitherto inexplicable state of parts, to be one of the several direct excitants of the excess of independent power, which I consider to reside in the arterial system; and in doing so, to be productive of phenomena which do not necessarily attend it in its natural state.

In this, and in various other papers, with the insertion of which in the Medical Gazette you have from time to time honoured me, I merely endeavour to investigate a few points in very close connexion with the art of medicine, by reasoning only, and rather by reflection on the experimental labours of others, than by instituting any of my own, but still more by reflecting on facts open to any

person's observation, and not liable either to the moral or other objections which must attend inquiries in which animal life is sacrificed under painful operations. I am far from being disposed to throw discredit on the well-directed labours of the experimentalist, although I venture to think the department to which my thoughts have been, and will continue to be perseveringly applied, as likely to be fruitful as some at least of the horrific relations of the foreign anatomical school.

DR. FOX ON CHOLERA.

To the Editor of the London Medical Gazette.

SIR,

WE have been alarmed by the progress of cholera, and have heard various statements respecting its contagious qualities and treatment from the practitioners in India; but from no one have we had a regular history of its first appearance, or of the laws by which it has been governed. I feel, therefore, less hesitation in offering observations which are founded on hypothesis hardly deserving of being termed a theory; nevertheless, when the danger is so imminent, it seems inexcusable in any medical man to withhold his suggestions to counteract so terrible a scourge.

All well-educated medical men understand the nature of cholera, as it has commonly appeared in this country; but of the origin of the Indian or Russian cholera, we are ignorant. The most that we know of it is, that it has pervaded the Indian settlements and islands; that it has appeared in our ships at sea; that by them it has been transmitted to countries where it was before unknown, and has been equally destructive by water as by land. We know also that it has gradually, but irresistibly, extended its ravages through India, Persia, Asia Minor, Russia, parts of Poland, and is actually spreading its baneful influence in the ports of the Baltic.

It may be inferred that climate has no share in checking the propagation of cholera; that it disregards the locality of hill and vale: well, therefore, has the government of this country been on the alert to guard against any

communication that may introduce the virus among us. Whether all has been done that sound sense and experience would inculcate, remains to be seen. As yet, we know only its contagious or epidemic qualities, but cannot say what is the nature of this or of any other contagion. Some medical men ascribe it to a malaria engendered by filth, or by animal and vegetable matters in a state of decomposition altering the constitution of the atmosphere. Though this may be true, as a remote cause, yet how are we to account for the existence of this disease where such causes cannot have operated? But, admitting their theory to be true, what change has been produced? Is there evidence of any disproportion of those gaseous elements that are known to constitute respirable air? Again, should any deleterious gas be detected, would it not have displayed its effects immediately? Let us next turn our attention to the real or supposed correctives of contagion—such as white-washing, general cleanliness, ignited tar, tobacco in its various forms, thieves' vinegar, camphor, brimstone, besmearing the skin with olive oil, and, lastly, the chlorates of soda and of lime. Review these articles, and reflect that all are more or less deleterious to animal life. Consider that the soils most pregnant with the seeds of remittent and intermittent fevers are marshy situations, which are most productive of visible and invisible animalculæ; and lastly, that it is notorious that cows and sheep that are pastured in such grounds, are most obnoxious to the rot, and when slaughtered, are always found to have the venæ portæ filled with living flukes. Though, therefore, I dare not assert from observation, that animalcular life is the cause of this disease, and though I may expose myself to ridicule for entertaining such an opinion, I think the facts stated warrant the deduction, that I do not hazard my medical reputation by offering such an hypothesis. Of course I expect animadversion for proposing what I am unable to maintain by any direct proof, but I am prepared likewise to show that a negative cannot be asserted. Be this, however, as it may, although I certainly accord with the provision of the quarantine which government has proclaimed, I do not consider this to be enough. Neither goods, men, animals, nor letters, should be

permitted to approach the land till they have been submitted to some process that might correct the infection, by destroying animal life. Thus vessels and cargoes ought to be fumigated by burning sulphur, and shutting down theatches and companion door. The argo ought to be unfolded to the air, and subject, if possible, to the action of sulphuric or muriatic gases. The persons of the crew ought to undergo the same process, and should, besides, be exposed to the vapour of the sulphuret of mercury, by sitting or standing in a small room, to receive the fumes from the projection of a quantity of cinnabar upon hot iron.

These are the precautions that I would observe with suspected vessels, crews, and domestic animals, if the disorder should unfortunately invade our shores; but, before it assail us, I would try the prophylactic remedies in Dantzic, or some other place abroad, by recommending the most perfect cleanliness—by whitewashing the floors, sides, and ceilings of rooms—by congregating all the uninfected individuals of a family every morning in a small chamber, subjecting them to the above process of fumigation, afterwards to wash the body with a weak solution of muriate of mercury, and every day to anoint the skin with a weak mercurial ointment, so as to obstruct the pores with a medicated oil. Upon these antidotes alone I would rely for my own family's preservation, and the near approach of the danger must lead every man to apprehend what may occur in his own household.

What form vitality might assume it is not for me to decide. Supposing that exanthemata, and other contagious diseases, owe their origin to vital virus, each must, I presume, be of a peculiar kind; each, like the psora, must be sown in ovo, and each require its particular period of incubation: at any rate, the one in question is *sui generis*.

Some persons, because the disease is accompanied with bilious vomiting, have treated it entirely on humoral principles; as if the fault lay in the state of the bile. On the contrary, I believe it to consist entirely in the peculiar action of the solids, and that the morbidly increased secretion of bile depends on the venomous quality of the animalcula, or other poison, operating directly or sympathetically on the stomach. Upon the whole, it is univer-

sally allowed that prevention is better than cure. Before the evil assail us, I offer these hints to my medical brethren. Let us try, by experiments at Riga, Dantzic, or any other place abroad, to arrest the progress of disease. If we are successful there, we shall have ground of confidence here. But, considering the intercourse between Great Britain and the Continent, I have great diffidence of any means being sufficient to prevent the introduction of the contagion; because it seems proved, in places where the scourge has ceased its ravages, from having exhausted its victims, so that people uninfected have confidently visited those places, the semina or fomes of disease have remained latent, but sufficiently active to infect a whole community. Let us not, therefore, remove too hastily our quarantine and other precautions. Should this scourge reach our shores, let us, while any suspicion exists, avoid all needless intercourse between man and man. Assemblies of people should be discontinued; all schools but boarding-schools should cease, and even they ought not to be suffered to take day-scholars; soldiers should discontinue useless parade; places of amusement should be closed, and all political meetings should be prohibited.

But should the disease prevail, experience abroad and our best energies at home, by communication between medical men, should be engaged to stop its career. On account of the peculiarity of the disorder, we are not competent, as in cases of ague and other complaints, to prescribe specific remedies; we must, therefore, rely on the means our best medical science will justify. With the utmost diffidence, I would try spirits of turpentine internally, arsenic, and small doses of corrosive sublimate.

EDWARD LONG FOX.

SMALL-POX AFTER VACCINATION.

To the Editor of the London Medical Gazette.

July 18, 1831.

SIR,

My former correspondence with you must have convinced you, that I am not indifferent to the cause of vaccination, or the reputation of its distinguished

author. You will not, therefore, be surprised when I once more solicit permission to deliver a few remarks on these subjects, suggested by a paper which I have just read in your Gazette. In doing so, I have no intention of interfering with the opinions of the writer of that paper; nor should I have noticed any of his statements, had they not given imperfect and inaccurate views of the recorded sentiments of Dr. Jenner.

It will best suit my purpose to commence my observations by examining the most weighty of the propositions—I had almost said accusations—laid down towards the end of Dr. Gregory's communication.

"Cow-pox," said Dr. Jenner, in his petition to parliament, "renders the person inoculated perfectly secure through life from the infection of the small-pox." *"To this error,"* observes Dr. Gregory, *"in the original notions of Dr. Jenner concerning the renewed susceptibility of cow-pox, I trace all the difficulties in which the question of vaccine protection has since been involved."* I cannot help saying, that this is an unfounded and injurious reflection. The words quoted from Dr. Jenner denote his *then* opinion regarding the protection afforded by cow-pox against the infection of small-pox. Dr. Gregory's commentary would lead the reader to believe, that Dr. Jenner was asserting something concerning a *part* of the question which was not then at issue; namely, "the renewed susceptibility of cow-pox." I can plainly see how Dr. Gregory attempts to escape from this difficulty, by saying, that his interpretation was only an inference from Dr. Jenner's avowed opinion concerning the identity of small-pox and cow-pox. With this I do not quarrel; but if Dr. Gregory, opposing as he does Dr. Jenner's facts and doctrines, could nevertheless feel himself at liberty to change the words, and predicate of cow-pox what was affirmed of small-pox, it certainly was but an act of the barest justice to state the converse of the proposition, and give Dr. Jenner the advantage of it. This would have been consistent with known and demonstrated truth. Has Dr. Gregory done so? He has published an inference adverse to Dr. Jenner, and denied him the benefit of his own doctrines, necessarily overthrowing, as they do, that very inference.

Dr. Gregory might and ought to have

known, that the assertion respecting the absolute and entire protection afforded by vaccination, which Dr. Jenner put forth in the infancy of the practice, was modified and explained by his subsequent experience. Anxious, naturally, to promote the practice of vaccination, he was led away by the very mistake that was committed by the early advocates of small-pox inoculation, who persisted in declaring, that no one could take small-pox a second time. Dr. Jenner, however, did not continue in this error. It has been clearly proved, that analogies drawn from the well-ascertained history of small-pox guided him in developing the properties of cow-pox: finding, therefore, that cow-pox sometimes failed to afford protection, he was led to ask this question,—is the protection from primary small-pox itself complete? It certainly is not; and if this be true of small-pox, he could not but see that it must be true of cow-pox. All this is matter of history; and it was not unknown to Dr. Gregory. He has reasoned upon it; and has, unhappily, done so in a manner not to be commended.

Could not Dr. Gregory have seen, that if Dr. Jenner believed that small-pox and cow-pox were governed by the same laws, he must have known that what was true of one, with regard to its prophylactic power, must be true of the other? If small-pox does not always afford protection against the recurrence of the disease, so neither does cow-pox prevent the possibility of reinfecting with cow-pox. I am almost ashamed to dwell so minutely on a matter so obvious; but, plain as it is, it has been rendered so obscure by the mist in which Dr. Gregory has involved it, that I am forced to be thus particular.

Why should Dr. Gregory quote a sentence written by Dr. Jenner nearly thirty years ago; then change the terms of the proposition; and immediately draw an inference hostile to Dr. Jenner's character as a philosophical observer, when the legitimate conclusion should have been, *and is*, the very reverse. Unquestionably Dr. Jenner, when he wrote that sentence, *did* believe that cow-pox would not follow cow-pox, any more than small-pox would. But it is known to all the world that he *did* abandon this opinion, when his experience was increased; and yet the great drift of Dr. Gregory's paper is to

how—that he was blind to truth and knowledge, and did not discern a fact regarding cow-pox, though he had unequivocally announced it with respect to small-pox, admitting, at the same time, that they both were varieties of the same disease.

I assert, without the slightest fear of contradiction, that Dr. Jenner was fully aware that a person might receive cow-pox twice, in like manner as he might receive small-pox twice, or oftener; and Dr. Gregory has no right to plead ignorance of this fact, for it *does* necessarily follow from the very doctrines which he wishes to impugn: I, moreover, assert, that Dr. Jenner carried *his* doctrine into constant practice. Where any doubts of vaccine protection existed, he invariably recommended that the individual should be revaccinated, being fully aware that this was a test *as certain*, and infinitely *less liable* to cause risk or danger, than the employment of small-pox. It is very remarkable that the principle on which the propriety of a second vaccination rested, was one of the earliest that was discovered after vaccination came into use. It was very soon seen that there were occasional deviations from the correct appearance of the vesicle; in such cases a second vaccination was uniformly advised, and *that* for the express purpose of ascertaining whether the protection had been perfect. If the second vaccination took effect, it was inferred that the first had not been complete; and *vice versa*.

Dr. Gregory has given a very old idea a new name. The *recurrent* cow-pox, as he calls it, corresponds with the allegations of the anti-vaccinists, that cow-pox only retained its virtue for a limited period of years, and then left the constitution unprotected as it was before. Had Dr. Jenner not known the possibility of the *occurrence* of cow-pox after cow-pox, as well as of small-pox after cow-pox, he certainly would not have been permitted to have remained in ignorance while so many kind and candid friends were on the alert to detect imperfections in his system. The statements by Dr. Gregory on this subject are, in fact, nearly as old as vaccination itself, and are precisely those that the great opposers of vaccination employed to throw discredit upon the practice. The temporary or evanescent character of its protection was constantly and assiduously brought forward

in every possible form; and, had the assertions been true to the extent that some maintained they were, no right-minded man could have recommended a practice which afforded only a delusive security. *Here* Dr. Jenner and the anti-vaccinists were at issue. He denied that the influence of cow-pox was either so transient or uncertain; on the contrary, he maintained, that if cow-pox had gone through all its stages in a satisfactory manner, it afforded protection nearly, if not entirely, equal to small-pox itself; and I verily believe, if his own practice, and that of those with whom he was more immediately connected, were to decide the point, it would be found that the ratio of small-pox after cow-pox is, as nearly as possible, equal to that of small-pox after small-pox; and, moreover, I can assert from my own knowledge of the experience of medical men in a very extensive and populous district, that the decay and extinction of the vaccine influence is not at all after the manner described by Dr. Gregory.

The last publication of Dr. Jenner on the subject of vaccination, was his *circULAR* respecting the influence of cutaneous diseases in modifying or deteriorating the effects of vaccination. He attached, as is well known, great importance to this subject, and ascribed, I believe, most truly many of the disappointments that arose, to a disregard of the facts which he had pointed out. He was arranging and digesting his information on this subject when the hand of death arrested his labours. I cannot, of course, tell what may have been his statement to Dr. Gregory, but there is strong evidence that his sentiments to the last were precisely in accordance with those which he had previously published; and that, were he alive at this moment, he would have treated Dr. Gregory's notion of the "recurrent cow-pox" as has been now done. The last words he ever wrote on vaccination, and they were *penned a very few hours before his fatal seizure*, were as follows. I give them in the French translation as printed by Dr. Valentin, of Nancy, in his "Notice Historique" of Dr. Jenner, published in 1824. I quote the *French*, merely because it is in print: "Mon opinion sur la vaccination est absolument ce qu'elle était lorsque j'ai publié la découverte. Il ne s'est passé aucun événement qui ait pu l'affaiblir

ou la fortifier; car si les fautes dont vous parlez n'avaient pas été commises, la vérité de mes assertions, concernant les circonstances qui les occasionnent, n'aurait été prouvée." This very striking and emphatic declaration incontestably proves that Dr. Jenner maintained a firm and consistent adherence to the doctrines and principles which he had promulgated. He could not have written these words had he not been convinced, that in all essential matters his opinions were founded in truth. When he presented his petition to the House of Commons, all the traditions of the country, and the experience that had been acquired, gave countenance to the belief, that the protection afforded by cow-pox against small-pox was complete. The frequent occurrence of secondary small-pox had, at the same time, been overlooked, and hence the overstatement which the petition contained.

To this error Dr. Gregory traces all the difficulties in which the question of vaccine protection has since been involved. Had Dr. Jenner persisted in such an error, it might have proved that he possessed an obstinacy of nature which was very foreign to him; but how, in any respect, it could lead to such evil consequences as Dr. Gregory maintains, I cannot conceive. Let any one read the history of vaccination as it was originally practised in that very hospital to which Dr. Gregory is attached;—let him look at the manner in which Dr. Jenner's doctrines were derided, his authority despised, and his warnings disregarded;—let him consider how studiously and dexterously the subject of vaccination was mystified and obscured, and that, too, by men of name in the profession;—then let him say whether it is just to load the memory of Jenner with obloquy, because of an admitted overstatement, and that, too, when it has been demonstrated that Dr. Jenner's own principles and views afford the only satisfactory explanation of the subject that has ever been offered. Dr. Gregory denies this, and says that it is an error in pathology to look upon small-pox and cow-pox as governed by the same general laws. The evidence is before the world. Dr. Jenner's own sentiments are now well known; the history of his mind in unfolding the qualities of cow-pox is also before us; to all this are to be added the facts con-

nected with the natural history of the variolæ vaccinae, which, since Dr. Jenner's death, have been brought to bear upon his doctrines. Let any competent and impartial judge carefully weigh this evidence, and let his award be according to truth. I cannot help believing that Dr. Gregory himself will ultimately adopt those views which he at present opposes. Certain at least it is, that the only facts which he adduces in his paper strongly tend to confirm Dr. Jenner's opinions. "It is a reasonable presumption," he observes, "that whenever the constitution regains the susceptibility to cow-pox, it lies open also to the infection of small-pox." I should say, sir, that it was not only a *reasonable presumption*, but an ascertained fact; and so far was it from being hid from Dr. Jenner, that it lay at the foundation of all his directions for the practice of vaccination.

I have the honour to be, sir,
Your old correspondent,
M. D. OXON.

A CASE OF PROBABLE DISLOCATION OF THE HEART.

From External Violence.

By WILLIAM STOKES, M. D.

One of the Physicians to the Meath Hospital and
County of Dublin Infirmary, &c. &c.

Mr. B—, aged 21, had enjoyed uninterrupted health until the 7th of May, 1822, when he was severely crushed between one of the arms of a water-wheel of great size, and the embankment on which the axle was supported. Some of his companions had been amusing themselves by entering between the arms of the wheel, and causing it to revolve by their weight; the wheel had been for some time stationary, and he was in the act of following his companions, his legs being already within the body of the wheel, when it revolved. He was thrown on his face upon the embankment, and received a blow from the arm of the wheel, in a line running from the inferior angle of the left scapula, to the top of the right shoulder. On its rebound, he fell within the wheel, from which he was immediately extricated. He remained for upwards of

three hours in a state of complete insensibility.

As soon as an examination could be made, the following injuries were discovered:—Two ribs in the lower portion of the left side, the right clavicle and humerus, and the fifth, sixth, and seventh ribs, on the right side, were broken. The right side of the face and chest was emphysematous, and there was complete paralysis of motion in the right arm, with considerable loss of sensation. The patient felt great pain in the right side of the chest, *with a sensation as if a foreign body preventing respiration had been introduced into the right lung*; the pain was accompanied by violent throbbing and heaving; and it was soon discovered that his heart was pulsating at the right side of the sternum. He had a short dry cough, but experienced no hæmoptysis, and there was no pain or other symptom of pleuritic inflammation at the left side*.

On the day of the accident, free bleeding was twice performed for the relief of the violent pain of the right side, bandages were employed, and in about two days the subcutaneous emphysema disappeared. During the next month he remained in bed, labouring under a short dry cough, always productive of great aggravation of the pain of the side, which on two occasions was so violent that it was necessary to use venesection. The blood was uniformly inflammatory. At the end of the month he was able to get out of bed, but during the next eighteen months he experienced frequent returns of the pain, calling for the employment of the lancet. The paralysis then began to disappear, and the use of the arm was gradually restored; at first he could only bend the limb, but was unable to preserve it long in the flexed position. He then returned to his studies, but found that he could not read for any length of time, from defective vision, the letters appearing like black lines, though he could still distinguish objects at a distance nearly as well as ever.

From that period to the present time his symptoms have been the following: The heart continued to pulsate on the right side of the sternum, the pulsation being generally strong and aggravated

by mental emotion, exercise, or the occurrence of pain in the side. He never had orthopnoea, but always experienced great difficulty of breathing on exercise, or when he attempted to lie on the left side. The cough has remained ever since, being always worse in winter. Any unusual exercise, such as rapid walking, has invariably brought on a violent fit of coughing, which is preceded and accompanied by a peculiar mawkish taste, a sensation which remains for some time after the cough has subsided. From the first he has found that if the right hand be plunged in cold water he experiences a strange sensation, which passes up the arm, and is then felt within the right side of the chest; and at the same time the arm is spasmodically brought across the front of the thorax. Hot water has produced the same effect, but not so violently. He also found that any cold substance applied to the right side of the chest, produced an extreme feeling of suffocation; and hence on his attempting to bathe in cold water he has always been forced to return immediately.

During the first three years from the receipt of the injury he found that the use of the smallest quantity of meat invariably brought on vomiting in about a quarter of an hour after it was swallowed: the same effect was produced by other food when taken in large quantity; and ever since that period vomiting always follows the use of food, if taken at a time when the dyspnoea is urgent. The act has always been productive of great pain, with a sensation of straining in the right mammary region, and considerable excitation of the heart's action. The pain and straining subside soon after the vomiting is over, but the heart has always continued to palpitate strongly for some time.

His appetite has varied according to the state of his respiration, and hence has been better in summer than in winter. Certain articles of food and drink produce a great oppression in the chest, with wheezing respiration. Those which he particularly specifies are milk, wine, gum, and sugar. Any article of food or drink taken in quantity invariably produces dyspnoea and palpitation. Since the accident he has every winter experienced several inflammatory attacks, in which he suffers from violent pain in the *right side*, with great increase of dyspnoea and palpitation; the tongue

* On this point, so important in the diagnosis of the lesion, the patient is perfectly clear. He states expressly, that since the accident, all the attacks of pain have been on the *right side*.

becomes foul, and he is affected with thirst. These attacks are only to be relieved by bleeding, and he now thinks he has been bled upwards of fifty times. The blood has been always buffed and copped; and it is a remarkable circumstance, that syncope has never been produced, even after the loss of so much as thirty ounces of blood at a time. These attacks generally last for a week; but in last November the accession of pain continued for three weeks, which is the longest that he recollects.

In the year 1829, he was advised by an eminent practitioner in this city to try the effects of digitalis. From this remedy he experienced considerable relief, and gradually increased the dose until he could take from six to eight grains of the powder, in a single dose, without the slightest inconvenience. *On one occasion he took so much as ten grains,* and he assured me, that after using the remedy in the dose of eight grains every night for the space of three months, his pulse was never below 80; its effect was constantly to relieve dyspnoea and diminish palpitation.

At present, when not labouring under any aggravation of symptoms, his appearance does not differ much from that of a person in the enjoyment of good health. His habit of body is spare but muscular; and the countenance is not expressive of distress. He has a hard, sonorous cough, with some mucous expectoration in the morning. In his ordinary state the number of respirations is about thirty in the minute, but this is not the case after exertion or an exacerbation of the bronchitis. Indeed, on the morning when I first saw him, his breathing was like that of a person in an advanced stage of laryngitis; but he then had an increase of catarrh, and had walked some distance to my house. When he does not take digitalis the pulse is generally between 100 and 120, regular in strength, and never intermitting but when he uses the remedy. Its usual frequency is between 80 and 90.

Having stripped the patient, I made a careful examination of the chest. The right shoulder is depressed, but the right side inferiorly is dilated more than an inch.

The left side of the thorax sounds perfectly clear even to its most inferior portion, and in the situation naturally

occupied by the heart. Respiration of the puerile character, and mixed with some bronchial râles, is to be heard over the entire lung, and is as distinct in the mammary region as in the other portions. The sound of the heart is scarcely audible in the upper part of this side, *but neither its sound nor impulse is perceptible below the mamma.*

The upper portion of the right lung sounds clear, but from the fifth rib downwards there is complete dullness, and here the integuments are exquisitely sensible. In the upper portion, both anteriorly and posteriorly, the respiratory murmur is of the same character as in the opposite lung, but from the fifth rib downwards it is wanting, except along the spinal column, where it can be heard feebly. There is no bronchial respiration or resonance of the voice.

The pulsations of the heart can be felt and seen in the right mammary region between the sixth and seventh ribs, and within an inch of the sternum. When not over excited, the sounds of the heart are almost natural, hardly different from those in the healthy state. The impulse precedes the pulse at the wrist by an appreciable interval*. There is no sign of valvular disease.

That the heart is displaced in this case does not, as it appears to me, admit of the slightest doubt. Now the circumstances hitherto recognised, productive of this state of parts, are:—

- 1st, Congenital malposition.
- 2d, The existence of an extensive empyema of the left side.
- 3d, The growth of tumors in the left cavity of the chest.
- 4th, Pneumothorax of the left pleura.
- 5th, Dilatation of the air-cells of the left lung.

In addition to these we have two other sources of displacement, which are much rarer—hernia of some of the abdominal viscera through the diaphragm, and aneurism of the abdominal aorta—a cause first signalized by Dr. Graves and myself.

But the displacement in this case can be easily shown to depend on no one of these causes. The patient is perfectly clear on the point, that, previous to the

* See a paper by myself and Mr. Hart, in the Edinburgh Medical and Surgical Journal for October 1830; also Dr. Corrigan's able paper in the Irish Medical Transactions of the same year.

† See Dublin Hospital Reports, vol. 2.

accident, he often felt his heart pulsating in the natural situation; and he was the first to point out to his friends that the pulsations occurred at the right side of the sternum after the injury. I questioned him most minutely on this subject, and he assured me that he frequently, after exercise, used to place his hand below the left mamma, to feel his heart beating. Add to this the excellent state of health which he enjoyed previous to the accident, and we cannot suppose that a congenital malposition could have existed. The great rarity of such an occurrence must also be taken into consideration.

I am not aware of any case in the records of modern medicine, in which the symptoms of congenital malposition of the heart in the adult have been observed. The cases detailed by Lancisi, where pulsation occurred at the right side of the chest, were examples of dilatation of the right cavities of the heart. Riolan, however, details two cases of pulsation at the right side of the sternum, in which the patient suffered no inconvenience; but the true nature of these cases is not known, while those mentioned by Senac and Bonetus, are examples of effusion into the left pleura.

That the cause of displacement in the present instance is neither a fluid, solid, nor aeriform collection in the left pleura, a diaphragmatic hernia, nor an aneurism of the abdominal aorta, is at once proved by the examination of the left side by auscultation and percussion. I may remark, that a case more illustrative of the importance of these modes of diagnosis, could hardly be found. It might be supposed by some that the pulsations at the right side of the sternum were produced, not by the heart, but by an aneurism of the descending thoracic aorta; but this opinion I think untenable, as we know that, when an aneurism of the descending portion of the aorta gives a double pulsation, it must be of great size, so as to press against the heart*. The tumor presenting on the right side, the heart would be pushed strongly against the left ribs, which is not the case here; and I may remark farther, that in such cases we can always feel two separate pulsations, one of the aneurismal tu-

mor, the other of the heart—a circumstance which is wanting in this case.

We must then admit, that this is an example of dislocation of the heart, with rupture of the pericardium and right pleura—a supposition which appears to me to agree perfectly with the history of the case and the present state of the patient. Thus we have an example of displacement of the heart from a cause not hitherto recognized. From the history of the case it appears highly probable that the patient has suffered under repeated attacks of pleuritic inflammation of the right lung. A question now arises, What is the actual state of the lower portion of the right thoracic cavity? Connecting the frequent attacks of pain with the absence of respiration in the inferior portion of the right side, it becomes possible that a circumscribed empyema may exist; but the presence of the heart in the right side of the chest, under such peculiar circumstances, of course renders this supposition problematical. As to the dilatation of the side, this may be produced by the heart itself.

The power which the patient has acquired of bearing such great doses of digitalis, is very remarkable. Of course much of this must be attributed to the acquired habit from its long-continued use; but in his case it will be seen that even after taking the remedy for a length of time, the pulse was not brought under eighty beats in the minute. The state of irritation of the heart will partly explain this. How far its displacement is concerned, is a matter for future investigation. But the most singular circumstance connected with this extraordinary case, is the fact of the patient, after so dreadful an accident, having lived so long and enjoyed a tolerable state of existence. This renders it probable, that if hypertrophy of the heart exists, it must be slight—an opinion which is borne out by his state at my last examination, when, although he had not used digitalis for many days, the action of the heart was perfectly tranquil.—*Edinburgh Medical and Surgical Journal.*

* See Dublin Hospital Reports, vol. v.

ANALYSES & NOTICES OF BOOKS.

"L'Auteur se tue à allonger ce que le lecteur se tue à abréger."—D'ALEMBERT.

History of the Epidemic Spasmodic Cholera of Russia; including a copious Account of the Disease which has prevailed in India, and which has travelled under that name from Asia into Europe. Illustrated by numerous Official and other Documents explanatory of the Nature, Treatment, and Prevention of the Malady. By BISSET HAWKINS, M.D. &c. &c. Octavo. pp. 306. With a Map. Price 7s. 6d.

THIS work consists almost exclusively of a compilation of the most important facts connected with cholera, culled from the numerous works and papers which have appeared on the subject; while the course of the disease up to a late (but not the latest) period is illustrated by a map, in which the dates of its visitation are marked. We have looked over the volume carefully, and have no hesitation in recommending it as containing a great mass of information. It is the unavoidable imperfection, however, of the history of any epidemic published while the disease is yet in progress, that every day leaves it farther and farther behind the actual state of our knowledge. It is like giving an account of the war between the Russians and Poles while the campaign yet rages—the work, with postscript and appendix, is completed, and perhaps the very next day brings the details of another battle. We shall be thankful how soon the History of the "Epidemic Spasmodic Cholera" can, indeed, be closed, and we know no one better calculated than Dr. Bisset Hawkins to record it with fidelity, and to do justice to the subject. Our objections apply to the nature and circumstances of the work, rather than to its execution: it may be looked upon as a faithful chronicle up to a certain point, but that point is already behind us. Herein have the periodicals greatly the advantage—that they can give, from day to day, each new fact as it is known: and we can confidently refer to the pages of

this journal as having communicated the earliest and most correct information on this engrossing subject which has hitherto appeared in this country.

A Practical Treatise on Injuries of the Head. Dublin, 1831. 12mo. pp. 121. Price 3s. 6d.

THIS anonymous little work is a mere compilation; but, being well executed, will be of considerable assistance to the student. A digest is given of the opinions of the best surgeons—Pott, Dease, Abernethy, Cooper, Brodie, &c.; and each chapter concludes with a set of aphorisms deduced from what has preceded; for example, with regard to wounds of the scalp, we are told—

"Wounds of the scalp do not essentially differ from wounds of similar parts situated elsewhere, and are to be treated on precisely the same principles.

"In the treatment of wounds of the scalp, you should have constantly in view its preservation.

"Union by the first intention is always to be attempted in incised and lacerated flap wounds, not combined with fractures, &c.

"If a scale of bone be cut off, and adhere to the flap, it makes no difference in the treatment. Proceed as if such complication did not exist.

"In contused wounds, if small, approximate the parts, but by no means bring them into very close apposition.

"Flap wounds, which are much contused, are to be treated by laying down the flap, after washing clean the surfaces. After the process of sloughing has taken place, bring the parts into the closest apposition.

"Never interpose a dressing between the flap and skull.

"Treat punctured wounds of the scalp as similar wounds in other parts, and like structures.

"To remove the inflammatory tension of the aponeurosis produced by these wounds, and the consequent fever, dilate the puncture by incision.

"Erysipelas, with fever, is not an unfrequent consequence of wounds of the scalp.

"Always keep in mind the proximity of those wounds to the brain; the vascular connexion between the pericranium and dura mater; and the neces-

sity, on this account, of a strict attention to the antiphlogistic regimen in the treatment."

Pathological and Practical Researches on Uterine Inflammation in Puerperal Women. By ROBERT LEE, M.D. F.R.S. Secretary to the Society. Physician to the British Lying-in Hospital, &c. &c.

(Concluded from page 533.)

Causes of Uterine Inflammation.

SOME forms of uterine inflammation are distinctly dependent upon injury of a mechanical nature, but more frequently the sources of the disease are obscure, and we are accustomed to call in the aid of contagion, or of an atmospherical peculiarity, to eke out our explanation.

Contagion has long been a stumbling-block to pathologists, and with respect to no disease is the contrariety of opinion more remarkable than as regards puerperal fever. Some of the most recent and intelligent of the French, among whom we may reckon Tonellé, Dugès, and Baudeloque, are decidedly against the doctrine of contagion; but the English writers have generally espoused the opposite side of the question. Dr. Lee gives it as his opinion, that, "in many cases, it has occurred in the most destructive form where the idea of contagion could not be entertained."

Some difference of opinion has also existed as to the nature of the inflammation—some regarding it as common, and others as specific. It often reigns epidemically; in this respect resembling the specific inflammatory diseases, as hospital gangrene and erysipelas. The latter, indeed, is the form of inflammation which it has been supposed by some to approximate most closely; but with regard to the mere anatomical characters, there seems to be no perceptible difference.

"In the autumn of 1829, a short time before the epidemic broke out in the British Lying-in Hospital, which led to its being closed for several months, two children died of erysipelas. In one of these which I examined after death, there were inflammation and suppuration of most of the branches of the umbilical vein, and extensive peritonitis. Another fatal case occurred in the course of the epidemic,

and on examining the abdomen I found the peritoneum extensively inflamed, with a copious effusion of sero-purulent fluid. A few days before the reappearance of the disease in the hospital in December last, an infant died of erysipelas of the external organs of generation and abdomen, and the same diseased state of the peritoneum was observed. Another infant was attacked with gangrenous erysipelas of the extremity of the right fore-finger on the 28th of December, whose mother had been cut off on the 24th by uterine phlebitis. Mr. Blagden has related to me a similar case which occurred in his practice last summer. A midwife of the hospital had a severe attack of erysipelas of the face, a few days after attending in labour one of the fatal cases I have related of inflammation of the absorbents and uterine appendages. These are certainly remarkable coincidences, but they are not sufficient, I conceive, to establish the fact, that it is an erysipelatous inflammation which attacks the uterus subsequent to delivery."

At the close of the paper we have an abstract of the histories of 112 cases of uterine inflammation, from which it appears that at one period the disease attacks one part of the uterus, and at another time another. Our author differs so entirely from a late esteemed writer, whose opinions are much valued by the profession, that we deem it a matter of duty to quote the passage, as deserving the serious attention of our readers.

"Dr. Gooch, the latest author of observations on puerperal fever in this country, has accurately described the symptoms and treatment of puerperal peritonitis. As a substitute for the ordinary names—child-bed fever, puerperal fever, and peritonitis, he has employed the term *peritoneal fever*, 'to express the fact that an affection of the peritoneum is an essential accompaniment of the disease, without defining what that affection is, because it is not uniform.' This term, *peritoneal fever*, is perhaps the least appropriate that Dr. Gooch could have invented, for he admits that the disease may occur in its most exquisite form, and yet leave few or no traces in the peritoneum after death, by which we might have been enabled to determine that this membrane had previously been the seat of the disease.

"The most remarkable circumstance," Dr. Gooch observes, "which the experience of the last few years has taught us about peritoneal fevers is, that they may occur in their most malignant and fatal form, and yet leave few or no vestiges in the peritoneum after death. The state of this membrane, indicated by pain and tenderness of the abdomen, with a rapid pulse, appears to be not one uniform state, but one which varies so much in different cases, that a scale might be formed of its several varieties; this scale would begin with little more than a nervous affection, often removable by soothing remedies, and when terminating fatally, leaving no morbid appearances discoverable after death. Next above this, a state in which this nervous affection is combined with some congestion, indicated in the cases which recover, by the relief afforded by leeches, and in the cases which die, by slight redness in parts of the peritoneum, and a slight effusion of serum, sometimes colourless, sometimes stained with blood. Above this might be placed those cases, in which there are in the peritoneum, the effusions of inflammation without its redness, namely, a pale peritoneum, and no adhesions, lymph like a thin layer of soft custard, and a copious effusion of serum rendered turbid by soft lymph. Lastly, the vestiges of acute inflammation of the peritoneum, viz. redness of this membrane, adhesion of its contiguous surfaces, a copious effusion of serum, and large masses of lymph."

"In investigating the morbid anatomy of this class of diseases, Dr. G. appears to have been satisfied with simply inspecting the serous surface of the uterus: now I am strongly inclined to believe, from what I have myself observed, and from the authorities I have quoted, that if he had gone behind the peritoneum and carefully examined the spermatic and hypogastric veins, the absorbents, the uterus and its appendages, with the subperitoneal tissues, he would frequently have found the products of acute inflammation. The absence of increased vascularity of the peritoneum, and of lymph and serum in its sac, does not prove that the subjacent tissues are in a healthy state. That a nervous affection, or congestion of the peritoneum,

should give rise to all the symptoms and consequences of fatal uterine inflammation, is not only highly improbable, but is wholly unsupported by proof.

"Dr. Gooch affirms that symptoms and dissections cannot settle the question. 'The effects of remedies on a disease,' he remarks, 'if accurately observed, form the most important part of the history. They are all chemical tests, frequently detecting important differences in objects which previously appeared exactly similar. Symptoms and dissection,' he adds, 'can never do more than suggest probabilities about the nature of a disease, and the effects of a remedy on it.' 'A trial of the remedies themselves is the only conclusive proof.'

"I might appeal to the works of all the eminent writers on puerperal fever, since the middle of the seventeenth century, to prove the fallacy of this opinion, and it would be easy to show, from the contradictory statements they contain respecting the results of the various modes of treatment adopted, that we must have remained for ever ignorant of the true nature of this disease, if we had reasoned from the effects of remedies alone, without the study of symptoms and morbid changes of structure.

"That diffused pain of the abdomen, with a rapid, soft pulse, not unfrequently occurs, at particular seasons, without inflammation, or with a very slight degree of inflammation, in delicate nervous women after parturition, and that these symptoms are relieved by opiates and warm fomentations, without either general or local bloodletting, will readily be admitted. That such cases are however, if not essentially different in their nature, at least widely different in degree of severity, from cases of sporadic or epidemic puerperal fever or uterine inflammation, is clearly proved by the following observation of Dr. Gooch himself:—"There seemed to be nothing dangerous in this form of disease, provided the nature of it was not mistaken, and improper remedies not used, yet it so strikingly resembled peritoneal inflammation that it was invariably taken for it by the practitioners who witnessed it." The results of the practice in the Westminster Lying-in Hospital in the years 1828 and 1829, still more decidedly prove that the cases described by Dr. Gooch were not cases of low child-bed

* An Account of some of the most important Diseases peculiar to Women, by Robert Gooch, M.D.

fever, for of twenty-eight women who were attacked with the disease, and were treated, as he had recommended, with Dover's powder, and warm cataplasms, seven died, or one in four."

Treatment of Uterine Inflammation.

On the subject of the treatment, Dr. Lee is less extended in his observations than we could have wished. The purpose of the paper, however, is chiefly to establish the pathology of the disease. The means to be adopted, or rather their degree of control over the disease, differs very much in its different forms.

"In no inflammatory disease are the good effects of blood-letting more strikingly observed than in the first variety of uterine inflammation, puerperal peritonitis; we do not, however, as Dr. Gordon has stated, possess a remedy in it which will certainly cure the disease in all cases, if early applied. Where the symptoms of peritonitis manifest themselves with great violence, twenty ounces of blood should be immediately drawn from the arm, and in a few hours, if relief is not obtained, sixteen ounces more should be abstracted. The first general bleeding should be followed without loss of time by the application of leeches to the abdomen, regulating their number by the severity of the pain, and the strength of the pulse. Warm linseed-meal poultices, or fomentations to the hypogastrium, should invariably follow the application of the leeches; and five grains of calomel, with an equal quantity of antimonial powder, should be administered every two or three hours. After the second dose of this medicine, I have frequently exhibited a strong purgative draught, repeating it according to its effect. It will often be found, that the pain of the uterus continues with considerable severity after this treatment has been pursued; and that the most decided benefit results from combining half a grain, or a grain, of opium, or five grains of Dover's powder, with each dose of the calomel and antimony.

"Where the symptoms do not indicate an attack of a formidable nature, we ought not to carry depletion so far. In a large proportion of cases, one bleeding will prove sufficient, and in many the application of leeches alone, with the internal remedies now mentioned, have subdued the disease.

"Oil of turpentine I have seen em-

ployed in a few cases without the slightest advantage.

"Emetics have been administered in puerperal peritonitis, and favourable reports have been published of their effects both by French and English authors. From the intense pain of the uterus, however, aggravated by the slightest pressure of the hand, or by compression of the abdominal muscles, and from the early occurrence of nausea and vomiting in the worst cases of the disease, emetics obviously appear to be little calculated for the relief of the symptoms. The first favourable report of the effects of emetics was given by M. Doucet, of Paris, in 1780, and it has been copied by almost all the English writers down to the present period, and has been considered as affording unequivocal proof of the power of these remedies to arrest the disease.

"Doucet commenced the employment of ipecacuan and kermes mineral in the month of June, 1782, according to Alphonse Le Rot, when the epidemic was ceasing. But these means were wholly inefficacious in the months of November and December, for the mortality was greater at this epoch, and at the beginning of the following year, than in 1780, when the remedy of Doucet was not known; and M. Tenon affirms, that the complicated puerperal fever in 1786 was curable by no means then discovered."

But again:—

"With regard to the treatment of inflammation of the uterine appendages, and of the deeper seated tissues of the uterus itself, whether of the absorbents, veins, or of the muscular structure, the symptoms from the commencement are generally those which contra-indicate the use of general blood-letting. In cases where the reaction at the invasion of the disease has been violent, with acute pain of the uterus, and venesection has been employed, the relief obtained has only been temporary, if at all experienced; and in some instances the abstraction of only a few ounces of blood from the arm has produced syncope, or been followed by rapid sinking. Where the local pain is severe, leeches and warm fomentations seem to be the appropriate remedies; but as far as my own observations go, we are in possession of no remedial means which effectually control those varieties of inflammation of the deeper seated structures

of the uterus, which I have attempted to describe. The French physicians are, however, of a contrary opinion, and are satisfied that we possess a powerful remedy, even in the worst cases, in mercury, employed so as to excite salivation. In one case of uterine phlebitis, I pushed this remedy by inunction to a great extent, and brought the system under the influence of mercury in less than twenty-four hours; yet the progress of the symptoms was not arrested, and the patient died, as I had observed others do where the remedy had not been administered. In other cases I have employed mercury to a great extent internally, without the slightest benefit; and it may justly be doubted, from the results of M. Tonellé's practice, whether or not it possesses the influence he supposes, for of forty-three cases where mercury was used as the chief remedy, only fourteen recovered."

A very important fact is stated in conclusion—viz. that more women die in public establishments than of those who are attended at their own houses; and consequently it becomes a question, "whether Lying-in Hospitals should not be considered, upon the whole, more injurious than beneficial to society?"

MEDICAL GAZETTE.

Saturday, July 30, 1831.

"Licet omnibus, licet etiam mihi, dignitatem *Archie Medice* tueri; potestas modo veniendi in publicum sal, discedendi periculum non recuso."—CICERO.

DESCRIPTION OF A MEDICAL AGITATOR.

It was about the time that the blasphemies of Taylor—the modern Shimei, who expiates his atrocities in Horse-monger-lane Gaol—were given to the public by some of the more obscure newspapers, that a letter was pointed out to us in the pages of a weekly receptacle for every thing that is vile; and filled as we still were with loathing and disgust at the abominable

and odious language of "the Devil's Chaplain," we were immediately convinced that he had his antitype in the writer of the letter to which we allude. Yes, here is an unfortunate creature permitted to go at large, uttering the most outrageous ribaldry—luckily for himself, not against the religion of the land, but against private character, and those with whom he should, if right-minded, deem it an honour to be acquainted—a wight, evidently marred in some paltry object of his little ambition, foaming with rage, and almost desperately furious; yet, strange to say, not put under any restraint,—nay, even furnished with facilities for discharging his envenomed jargon upon the public. As it happens, however, that this mischievous, though intrinsically insignificant person, belongs unfortunately to our profession, it becomes *our* duty to interfere, and, if we cannot lay an effectual embargo upon him, or doom his scurrility to a perpetual silence, we shall at least take care that his proceedings obtain so much exposure, as will render them ever after perfectly harmless, though, perhaps, not perfectly inoffensive.

Our readers may remember, that we had occasion some months ago to allude, in severe terms of censure, to one or two letters written in defence of the apprenticeship system in the Irish College of Surgeons, by a person signing his initials, "AR. J." and confessing himself to be in an official situation about the College: we unmasked his effrontery at the time, and showed off the gentleman in some of his true colours. However, there we left him, not thinking him worthy of occupying more of our attention, and losing sight of him in the immeasurably superior importance of whatever topic attracted our notice since then, from week to week, until now that we find he has been working himself up in the interval into a perfect

phrenzy. His last effusion crowns all. Being of a most ludicrously pugnacious disposition, and fretting for some antagonist whom he might drag into "the ring" with him, he at length changed his tone of challenging, and, from writing *of*, he has proceeded to write *at*. Mr. Carmichael, with whom he has long desired to try the issue of a single combat. "Richard Carmichael," says the angry letter writer, "your book—with all your first editions and second editions, your reviews and advertisings, your introductory lecturings and puffings, your translations and bookselling influences, your Dr. Kheens and Dr. Emersons—has never paid the expense of publication! If I be wrong, the *Gazette*-man can set me right" [meaning us here, we presume.] "Be advised; paper character is at a fearful discount; the days when a bookseller, with his review, could make a great man, are gone: *laugh in your sleeve* at your success, and at the ignorance and credulity which secured it; *the grave of your literary reputation is dug: in with it—cover it up quickly—imitate the instinct of the cat, and save your neighbours from further annoyance*!!!! We should apologize to our readers for, no doubt, nauseating them with this last passage, but the extract struck us as being not unsuited for illustrating the silly notions of the writer: it is but a small part of the tissue of loathsomely-abusive slander and scurrility from which it is taken, and taken, too, from the very opening of it, we need scarcely say, without selection. It is with inexpressible disgust that we meddle with the revolting subject at all—but it is a duty that devolves upon us to perform, and which we *will* perform unshrinkingly.

That "Billingsgate" was brought to its greatest perfection on this side the channel, we had always supposed: we thought that we had among ourselves in

this metropolis the choicest masters of that species of eloquent composition—old Cobbett, for instance, (though in many respects he would deserve to be in better company than among the crew we feel bound to name him with) Carlile, Taylor, Wakley, and that sort: but we find we have been mistaken: we have no monopoly in this commodity: we have been perfectly undeceived in that respect by the ribald effusions of the individual, among Irish professors; (!) who signs himself Ar. J. In what estimation the person may be held by his brother professors, or by the members of the College of which he volunteers to be the champion, we have no immediate means, nor indeed any great desire of knowing; but of this we are well persuaded that, were he settled here, he would enjoy a high place among a certain class of the most notorious characters of the age. But we could not flatter him with the chance of a *Professorship*: no, thank heaven, we have no taste here for filling our professors' chairs with individuals gifted like him. Had the unfortunate gentleman who has just been dismissed from a certain establishment in this city, but once displayed a hundredth part of the vulgarity and invective which are habitual with Ar. J. there had been no parleying or dispute about his removal: he would have been *exploded* long ago by both principals and pupils.

Ar. J. was first noticed in our pages in connexion with the question of apprenticeships in the Irish College: but that question has now vanished into total insignificance, obscured by the overwhelming mode of argument adopted by our extraordinary professor, who, poor man! destitute alike of reason and of decency, seems to have had his head quite turned by the notice we formerly took of him; and our only course, consequently, henceforth

must be, out of pure charity, to let him alone, or at least to have as little to do with him as possible. His chosen antagonist, Mr. Carmichael, may act as he pleases: he may close with him or not, for aught we care, or ever did care: though if we should conjecture from some of the late movements of the latter gentleman, coupled with his well-known taste for novelty as well as notoriety, he will have little leisure just now for such a contest. Should he, however, or any one else, be so rashly disposed, let it be remembered that Ar. J. is now grown desperate: his story is out, and a story it is, sufficient to disturb the equanimity of a far less excitable being than our volunteer of the Irish College. It is a very dreadful thing, most assuredly, to have one's *peculiar membrane*—the delicate substance on which one has built all his hopes and prospects—crushed ruthlessly in a moment by an old German professor—one Boemmering; and to have it pronounced by him to be nothing more than a *little cellular tissue*! It is clearly a desperate case; and no wonder that in such circumstances the advocate of apprentices should be driven to his wit's end. He must vent his spleen and mortification somewhere: he is, as we have said, naturally pugnacious, and to comply with the necessities of his nature, must maintain a vulgar contest with somebody. But it will in the meantime behove his brother professors, and the heads of his college, to *look well to the predicament in which they are placed* by their connexion with him. The Dublin school begins to have a certain character from this man's doings.

CHOLERA AT WARSAW.

M. LONDRE, the president of the French medical commission sent into Poland to study cholera, has written to the Académie de Médecine. His letter is dated Warsaw, and announces the fact that

the disease, which had apparently disappeared there, had recommenced its ravages in the course of the present month—which he attributes to the lowering of the atmospheric temperature, and the prevalence of almost continual rain. The contagion question is still mooted; and he tells us that we are not to trust the sick lists and bills of mortality which are in circulation—many patients being returned as *cholériques* who are not so. Numbers have no vomiting nor dejections. The post-mortem appearances on dissection are very strikingly cognizable. The writer adds, that M. Legallois is despaired of.

We extract the following particulars from a Warsaw letter, dated, June 30, received through a French channel:—

“—There is much disputing and contention among the medical men here; every one having his panacea to prescribe. Some, with M. Serret at their head, (this gentleman is an English physician, engaged to practise in Warsaw, with a salary of 22,000 florins: he has been a long time in India, and says he has had the cholera three times) profess to cure the disease with *opium*, in doses of from four to six grains every hour, with *alcoholic drinks*, (three parts spirit to one of water)—and *nothing more*. Others, among them MM. Leo and Mikulniski, assure the world that *the magistery of bismuth*, in from one to four grain doses every hour, is the *ne plus ultra* of remedies. They sometimes add to the nitrate of bismuth, a *bath*, at from 28 to 29, of Reaumur; *some leeches to the abdomen* in cases of severe pain, and *warm drinks*. Finally, there are some who stick to the old practice—who employ almost indiscriminately venesection, cupping, baths, hot drinks, calomel, sugar, opium, and camphor—but their number diminishes every day—such practice beginning to be now looked upon generally as detestable. But as to success, one might almost say that *one system of practice is as good as another*. In fact, they are all good and they are all bad: they are good when the disease is not intense;

they all fail when it is. I may be told that cases of cure are constantly recorded. Yes, and I shall tell you how: the epidemic rages in all quarters—whatever cures are effected are put down for cures of cholera—and that is the short way we have here of writing medical histories. Let me beg of you to put no faith in professed cholera-curers, and especially not in those among us who, manifestly desirous of diminishing the merit of their colleagues newly arrived, disseminate reports that the disease is on the wane. I can assure you that in the opinion of the most candid and able practitioners here, the cholera has not abated a jot in its severity. A French physician, who had his own reasons for doing so, told me the other day that *eight grains of the nitrate of bismuth*, given in the space of *two hours*, had restored to its natural condition the cadaverous black and blue face of a patient in cholera! I could not listen to my faithful informant with common patience—I laughed outright in his face. Only think of the absurdity of such stories about miraculous cures effected in bodies which have totally lost their sensibility to the presence of medical agents—and which are wholly destitute of the function of absorption! When those bodies are opened, the thing is proved—the remedies are found, quite unaltered, in the stomach. For some days past we have had a great contest between MM. Searle and Mikulinski on the relative merits of calomel and nitrate of bismuth. The former insists upon calomel being alone all-sufficient to cure cholera; while the latter says just as much for his magistracy. Both the champions, speaking bad French, and not always understanding one another very well, have lost their temper, and, it is said, will exchange the lancet for the sword, in order to decide whose remedy is the better. But seriously, it is quite deplorable that so bad a spirit should prevail among the faculty here, and at such a time too. Why will they not on all hands honestly confess, that nothing which has yet been done is better than blind empiricism? They neither know the causes, the seat, nor the nature of the disease," &c.

The letter from Mr. Searle, which we published on Saturday last, was dated a few days later than this—but we have thought it right to lay before

our readers the additional information contained in the above, proceeding too, as it does, from a person apparently of much candour and independence.

CHOLERA AT PORT GLASGOW (1)

ACCOUNTS were received last Saturday of the occurrence of cases of cholera at Port Glasgow, which from their severity, as well as the circumstances under which they happened, had been deemed by the local authorities of sufficient importance to require their being officially communicated to the Government. The papers were laid before the Board of Health, who so far concurred in this opinion as to advise that a person familiar with the Indian cholera, should be forthwith dispatched to examine into, and report upon the nature of the disease. In consequence of this recommendation, Dr. Daun left town the same evening; but as he could not arrive at his destination before Tuesday, sufficient time has not yet elapsed for the result of his observations to be known. Meanwhile, we may state that we have received information of a more recent date, from a source which we deem authentic, and of a nature to allay apprehension. It appears that several persons—principally young women—after having been pent up in close and heated apartments, picking hemp, were seized with vomiting and purging, accompanied by cramps of the limbs, constituting precisely the cholera of this country, and under which several of them rapidly sunk. The season of the year, and the circumstances under which they were placed, are quite sufficient to account for such disease without having recourse to infection as the exciting cause: besides which, according to our informant, other persons exposed to the same heat and confinement; but who had not been at work upon hemp, were similarly affected. It would, indeed, have been extraordinary if the state of atmos-

phere which has prevailed for some time had not been followed by some such cases as those alluded to; and, in fact, we have had a considerable number of persons in this metropolis affected with similar symptoms. During the present week, for example, a Paddington coachman died of cholera within less than twelve hours. But such cases are dependent upon obvious and temporary causes: they are sporadic, and wholly independent of infection.

LONDON UNIVERSITY.

PROFESSOR PATTISON has at length been removed from his chairs of Anatomy and Surgery—on the ground, “that the shock, which the popularity and efficiency of the medical school received by the disturbances which prevailed in it, could only be obviated by that gentleman’s retirement;” while it is added, “that in taking this step, the Council felt it due to the Professor to state, that nothing which had come to their knowledge, with respect to his conduct, had in any way tended to impeach either his general character or professional skill and knowledge.” It is clear enough from this, that the Council had no notion of acting up to the old maxim of *fat justitia, ruat cælum*. But whatever sentiments we may entertain respecting the step that has just been taken, we think it but right to suspend the expression of them for the present—until, at least, we have the promised statement before us. Meantime we subjoin letters which we have received from Mr. Pattison and Capt. Gowan, a member of the Select Committee.

PROFESSOR PATTISON.

To the Editor of the London Medical Gazette.

SIR,
You will oblige me by publishing in your journal the following minute of

the Council of the University of London, received by me last night:—

“Session of Council, 23d July, 1831.

“The Council, in concurrence with the suggestion contained in the Report of the Select Committee of this Council of the 18th June, 1831, that the popularity and efficiency of the medical school have received a shock by the disturbances which have prevailed in it, and which can only be obviated by the retirement of Professor Pattison from the chairs of anatomy and surgery; and deeming it therefore essential to the well-being of the University, and the success of the medical school, that Professor Pattison should not any longer continue to occupy these chairs:—

“Resolved, that Professor Pattison be, and he is hereby removed from his situations of Professor of Anatomy and Surgery in this University.

“Resolved, that in taking this step, the Council feel it due to Professor Pattison to state, that nothing which has come to their knowledge with respect to his conduct, has in any way tended to impeach either his general character or professional skill and knowledge.

(Signed) “THOMAS COATES.”

As it is my intention to publish immediately a history of my connexion with that institution, and an account of the causes which gave rise to the disturbances referred to, I will only now observe, that by the admission of the Council themselves, “nothing has come to their knowledge with respect to my conduct which has in any way tended to impeach either my general character or my professional skill and knowledge.” This being admitted, it is difficult to understand on what principle of justice a gentleman, who has been induced, on the representations of the Council to resign a Professorship in America, which was worth more than 2000*l.* per annum, to engage in their service, can, by an arbitrary act, be deprived of an office to obtain which he made so great a sacrifice.

I remain, Sir,
Your humble servant,
GRANVILLE S. PATTISON.

129, Regent-Street,
July 24th, 1831.

To the Editor of the London Medical Gazette.

SIR,

IN justice to Mr. Professor Pattison, whose retirement from the chairs of anatomy and surgery in the London University is, in my opinion, so arbitrarily recommended in the Report of the Select Committee appointed by the proprietors to inquire into the past and present state of the University, and read at their meeting yesterday, I beg, as a member of that Committee, to submit my reasons for decidedly disapproving of such recommendation.

1. In examining the documents, as it was my duty to do, in the office of the University, I found numerous highly-honourable testimonials in Professor Pattison's favour, given by the most eminent professional and literary men in Great Britain and America.

2. I found that when a candidate for the chair of anatomy, he asked the Council not to rely on those testimonials only; but, "should they consider any probationary exercise or trial necessary to test the qualification of the candidate, he was most willing to undergo it." The Council, however, did not consider it necessary, and appointed him to the chair; and this preference, I fear, was never forgiven.

3. I found the Council did not permit him, as is generally, if not invariably, the practice, to nominate his own demonstrator, or assistant; and out of this false step arose, as it was easy to foretell, rivalry, contention, and all the subsequent excitements and disturbances.

4. I found, soon after this, that discontent and disrespect to their Professor began to be evinced by a small number of the anatomical pupils, which gradually extended itself, from the irresolute, vacillating, and foolish manner in which the Council dealt with so inadmissible an act as that of students questioning the competency of their teacher.

5. I found next, that meetings of the medical students were held in the dissecting (demonstrator's) room, and elsewhere, and committees appointed, with a secretary, to concert measures of annoyance and injury to Professor Pattison, and to beard, and abuse, and ridicule the Council!

6. I found it observed in a letter recently transmitted to the Council, from a late medical professor of the Univer-

sity, "That the conviction on his mind will always be, that Professor Pattison has been the victim of a most wicked conspiracy; and that if he had been allowed to pursue his duties unmolested, he would have been one of the most popular, and one of the most useful teachers of anatomy in Europe." Another distinguished literary professor also addressed the Council in these words:—"Entertaining the opinion which I do of Mr. Pattison's qualifications, I would deplore his removal from this University as an event which would be more injurious to it than the loss of almost any other professor; certainly more so than the loss of any of his medical colleagues. It is greatly to be lamented that some of his medical colleagues (he remarks) did not devote their time and attention to the improvement of those qualities in which Mr. Pattison is so conspicuously their superior, instead of engaging in the ungracious and unworthy task of accomplishing the ruin of their most respectable and gifted colleague, by giving countenance and encouragement, as I understand they did, to those riots among the students which have disgraced the institution."

7. I likewise found it affirmed, in a very able memorial sent in to the Council by Professors De Morgan, Lardner, M'Culloch, Key, Long, and Rosen—"That the disturbances which have unhappily occurred in the medical school cannot be attributed to any defect or misconduct of Mr. Pattison. He is, at least (they observe), as competent now as he was three years ago, when the peace and order of the establishment were undisturbed." And add:—"We have no hesitation in declaring our conviction, that the cause of the rise of insubordination and riot among a certain portion of the medical students, is to be found chiefly in the want of an efficient system of academical discipline in the University."

After seeing all this, and much more, which it would now be too long to detail, I could not honestly and conscientiously say that Professor Pattison merited any blame; but, on the contrary, great commiseration; and the more particularly, as we found in the minute-book of the Council, that a Committee, appointed by them, *had investigated the charges against him, and found them groundless!!*

I did, therefore, protest against the

resolution of the Select Committee (of which I was a dissenting member), to recommend Professor Pattison's retirement, until he had been fairly heard in his own vindication; which was refused; on the grounds that the Committee were neither competent, nor had time, to decide the question of merits, whilst, at the same instant, they award the severest punishment (dismissal) the University could inflict on a professor who had been proved guilty of the deepest moral delinquency!!!

WM. GOWAN.

No. 6, Cleveland Row,
July 24, 1881.

REPORTS OF CASES OCCURRING AT PUBLIC INSTITUTIONS.

GUY'S HOSPITAL.

Compound Fracture of the Ankle-Joint.—Lacerated Wound of the Leg, &c.—Death.

CHARLES FOX, *stat.* 28, admitted into Guy's Hospital July 4th, at six o'clock, P.M. having, an hour and a half previously, fallen from the main-top-sail yard on to the deck of a vessel—the height of sixty feet. It appears, that, in the fall, his back struck across a rope, which had the effect of turning his feet downwards; but the right leg catching on the flue of the spar anchor (lashed about three feet from the deck), caused the whole weight of the body to be concentrated on the left heel.

On examination, there was found a longitudinal fracture of the tibia, extending from the ankle-joint about an inch up the bone, with a transverse fracture meeting it, so as completely to separate the inner malleolus, and allowing the astragalus, which was supposed to be fractured, to be driven up between the tibia and fibula. The tuberosity of the os calcis was moveable from the other part of the bone, which appeared to be much comminuted. There was a small punctured wound just below the inner malleolus, which, from the large quantity of blood that had been lost from it, was supposed to communicate with the saphena vein.

The gastrocnemius muscles of the right leg, with the periosteum, had been separated by the flue of the anchor for five inches longitudinally, at the middle of the tibia, from the whole posterior surface of the bone; the integuments were torn in a transverse direction (for three inches) meeting the bottom of the longitudinal incision, and completely baring the saphena vein, which, however, was uninjured. The blow from striking across the rope in his fall has produced a large extravasation of blood into the cellular membrane over the lumbar vertebrae, but

there is no apparent injury of the spine discoverable; nor are there any symptoms to lead to a supposition of its having suffered. He has passed just now a pint of clear urine. His pulse is very weak and small; the surface of the body is quite cold.

The wound on the right leg was drawn together by two sutures, and a strip of adhesive plaster here and there, to support the integuments. A piece of lint was applied over the plaster. The leg, with the knee slightly bent, was placed on the outside, and cold ordered to be incessantly applied. A piece of lint was placed over the small wound below the inner malleolus of the left leg, and splints were lightly applied, with cold lotion to the ankle.

10 P.M.—His pulse has rallied, and is now 100, but small; the surface of his body is warm; complained very much of his back, which has been relieved by placing a pillow above and below the injured part.

To have thirty drops of *Laudanum*.

July 5th, A.M.—The dresser was called to him during the night, on account of copious bleeding having taken place from the small punctured wound below the inner malleolus of the left leg. This was stopped by a compress of lint and a few strips of adhesive plaster. He has passed a restless night, but says he feels better this morning. Tongue white; pulse 120, small, and of an hæmorrhagic character; lips pale; has had a healthy evacuation.

6 P.M.—Has attempted to get out of bed; his countenance is wild and anxious, with a peculiar vacant stare; respiration hurried; matters incoherently, but is sensible when spoken to. Pulse 130, small and running.

Ordered 3ij. *Opii stat.* to be repeated at 10 o'clock, if necessary. An opiate.

Poultice to the wound on right leg.

July 6th, A.M.—The opium was repeated at ten o'clock, and 3j. at two o'clock; since which time he has been quieter, and has had some interrupted sleep. Has passed plenty of urine; says his back is better, but complains of his left ankle feeling hot and inflamed. Pulse 130, and running.

Ordered *Ammon. Subcarb. gr. viij. ex Aq. Ment. 4tis horis.* The cold to be continued to the left ankle; to have a pint of porter, and the opium again at night, if necessary.

6 P.M.—Has felt better since taking the porter; in other respects much the same. Pulse 135, and running. At eight o'clock vomiting came on.

Mustard poultice to the scrob. cord. and a table-spoonful of brandy every hour.

Continued sinking through the night, and died at seven o'clock the following morning.

Postmortem Examination.—On laying open

the integuments of the left leg a considerable quantity of extravasated blood was found surrounding not only the ankle-joint but also the tarsus. The tibia was broken transversely about an inch above the joint, the lower portion being broken longitudinally into two pieces. One portion, including the anterior and internal extremity of the bone, remained attached only by the deltoid ligament, which was entire.

The other portion, including the outer and posterior part of the bone, was again broken vertically into two pieces, each of which remained respectively attached to the fibula, by the anterior and posterior tibio-fibular ligaments. Each of these fractures extended into the joint. The astragalus, which was uninjured, appeared to have been driven up between these portions of bone, separating them one from the other. Two other smaller portions of bone were seen broken from the shaft of the tibia. The fibula was uninjured. The external malleolus remained attached to the astragalus by the anterior and posterior ligaments, whilst the perpendicular ligament was torn through.

The os calcis was most extensively fractured; the tuberosity being broken off from the rest of the bone in one entire piece, remained attached above by the tendo achillis, and below by the great plantar ligaments. The other part of the bone, including its articulating with the cuboid and astragalus, was broken into innumerable irregular pieces, some of which were loose, and others remained attached, by the tarsal ligaments, to the astragalus navicular and cuboid bones. The rest of the tarsus was uninjured.

The contents of the abdomen were perfectly healthy and uninjured; but on taking out the intestines a considerable ecchymosis was seen in the cellular membrane covering the psoa musclee, extending some way into the pelvis. The body of the second lumbar vertebra was broken through without any displacement. The symphysis pubis was separated for the eighth of an inch, without any other injury to the pelvis or its contents. On turning over the body and cutting down to the spine, the spinous processes of the first and second lumbar vertebrae were found separated from each other, and the ligamentum subflavum torn through, allowing the introduction of the finger into the spinal canal. On removing the three superior lumbar vertebrae, the body of the second was found broken completely through, without any displacement in the spinal canal, or any injury whatever to the spinal cord.

P.S.—The separation of the symphysis may be supposed to have been caused by the violent flying asunder of the legs (the abductor muscles being fixed at the time) when the body was impeded by striking across the rope,

MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY.

Case treated by Mr. Hamilton, under the superintendence of Dr. Stokes; with Mr. Hamilton's remarks.

Pleurisy with Effusion, in a case of habitual Insanity—Stethoscopic Phenomena—Recovery.

WILLIAM ATKINSON, ætat. 30, a sifer, of a florid complexion, taken into the hospital February 5th, 1831. Complains of severe pain at the inferior part of the right side of the chest, which is very tender to the touch, and becomes worse on coughing or full inspiration; the pain occasionally shoots up into the right shoulder. He says it first seized him about a week since, in the middle of the night; at first like a stitch, gradually growing worse towards morning, with cough. It was not preceded by any symptom, such as shivering, &c.; nor can he assign any cause for its attack. At the same time the respiration became hurried and difficult, chiefly from a full inspiration, aggravating the pain, as he says he could breathe freely with every other part of the chest. The cough, which has attended the pain from the commencement, appears not to have been very severe, nor attended with a copious or bloody expectoration. His symptoms increased so much in severity on Thursday that he could scarcely breathe, experiencing a feeling of suffocation. The pain became somewhat less on Friday, when he was admitted into the hospital. Since the first attack of the pain he has been confined to bed; felt hot and thirsty, but at no time had any shivering. Bowels have been pretty regular.

On examining the chest with the stethoscope, the respiration is hard, clear, and distinct over the whole of the left side of the chest; also, though not so loud, in the two upper-thirds of the right; at about the lower third of this side, posteriorly, the respiration gradually becomes almost inaudible; and laterally and anteriorly beneath the right nipple, perfectly so. The sound on percussion, elsewhere clear, is in these parts very dull. There is no bronchial respiration, nor resonance of the voice; no egophony; affected side larger; the liver is not tender; decubitus generally on the back; is easier on the affected than healthy side; respirations 26; pulse 83, soft and weak; tongue moist, pale, and covered with a white fur; some cough; expectoration scanty, consisting of white glairy frothy sputa, tinged with yellow.

He yesterday took tartar emetic, which vomited and purged him. Was also bled; blood neither cupped nor bled.

R. Sabmar. Hydrarg. gr. xxiv.

Opti. gr. iv. M. ft. pil. xii. sumat unam tertis horis. Hirud. xii. lateri dextro.

6th.—Pain less. Rep. Pil.

7th.—No pain, except on coughing or inspiration. Purged and griped ten or twelve times. Stethoscopic phenomena the same.

Omit Pil. Vesic lateri.

8th.—A copious perspiration came on in the middle of the night, and still continues; the only one since the commencement of his illness. No pain in the side even on coughing or full inspiration; scarcely any cough; breathing much easier; went only once to stool, with some griping; mouth sore; no examination of the chest made.

9th.—Going on well; a profuse perspiration this morning.

10th.—Improving; no pain or tenderness of side; perspired, but not so copiously during the night. Sitting up; the sound on percussion is perfectly dull at the inferior part of the right side of the chest posteriorly, and respiration inaudible; but lying on his face, the sound becomes clear, and the sound of respiration distinct. The same was observed on the affected side anteriorly, the sound being dull, and respiration inaudible when he sat up; but while he lay on his back, the sound became clear, and the respiration audible.

Dr. Stokes, wishing to keep up the determination to the skin, ordered—

R Pulv. Doveri.

Carb. Ammoniz, aa. gr. iij. sumat omni secunda hora cum potu calido.

14th.—Going on well. He was then put upon diuretics.

R Infus. Pyrolæ, ℥vi. Acet. Potass, 3iij. Scillæ, 3ij. Consumatur in die.

19th.—He was dismissed, the sound on percussion being rather duller, and respiration feebler on the affected side inferiorly; but no pain, cough, nor any fulness of the side. On his first admission he was civil and quiet, though known to be somewhat deranged; but as the pleuritis diminished, his former madness returned, rendering him unruly, insolent, and a great annoyance to the other patients in the ward.

REMARKS.—When this patient entered the hospital, the first violence of the disease appears to have been somewhat abated, though still extremely severe. From the nature and seat of the pain, its aggravation on pressure, cough, or inspiration, the supposition at once arose of its being a case of pleurisy, which the results of percussion, auscultation, and mensuration, converted into certainty. The last of these means of diagnosis was performed in the presence of Dr. Stokes, and clearly showed the affected to be larger than the healthy side, a difference which could also be detected by the eye. The character of the expectoration, and the absence of any stethoscopic signs of pneumonia, showed

it to be uncomplicated with that disease, a circumstance, according to the observation of Drs. Graves and Stokes, of rare occurrence in Dublin.

The presence of egophony was alone wanting to complete this otherwise perfect group of symptoms. This, of course, cannot be wondered at when it is considered that he entered the hospital a week after the commencement of his illness, and when considerable effusion had taken place. Laennec, observing that egophony, rarely wanting in the beginning of pleurisy when the pleura was previously sound, is generally absent after the quantity of fluid becomes increased, which the protrusion of the affected side, and fulness of the intercostal spaces, dulness of sound, and complete absence of respiration, all prove to have been the case here. The examination on the 10th was very satisfactory, not only confirming the diagnosis already made, but, from the change of situation in the fluid, it being then first shown, from the position of the body, that the quantity of fluid was diminishing—as Laennec states that it is only when the fluid is inconsiderable that it falls to the inferior and posterior part of the chest when the patient lies on his back, on account of its being heavier than the lung.

It will be seen, that, though greatly relieved by the bleeding, leeching, and other means employed, the prime agent in the removal of the disease was the critical sweat which came on in the night of the 7th; after which the recovery was rapid. Several similar critical terminations of this disease are given by Andral and others.

The pulse, respiration, and constitution generally, were less affected than the severity of the affection would have led one to expect.

It would be easy to theorize on the highly interesting fact of the madness being removed for a time by the presence of an acute inflammation—though it is doubtful whether such a speculation would lead to any useful purpose or not.

PROFESSIONAL HONOURS.

WE can no longer complain, as we lately had occasion to do, that science is more honoured in France than among us: it is stated in a Sunday paper of this week that two of the most distinguished members of our profession (whose title to elevation will be duly appreciated) are to be forthwith raised to the Peerage—viz. Mr. St. John Long, by the name of BARON RUSBACK, and Mr. Wakley, by that of COUNT BLAZES.

W. WILSON, Printer, 57, Skinner-Street, London.

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SATURDAY, AUGUST 6, 1831.

LECTURES

ON

MEDICAL JURISPRUDENCE,

Delivered in the University of London.

By PROFESSOR AMOS.

MURDER AND MANSLAUGHTER.

Poisoning with Prussic Acid—Medical Evidence, with Remarks on a Case noticed in Dr. Christison's book—Evidence in a Case tried at Nottingham, for poisoning a Mare—Instances of the Importance of Medical Testimony—Occurrence of Lock Jaw after a Wound—Probable occurrence of Apoplexy—Other Injuries—Medical Evidence on the Trial of Booth, at Warwick, in 1808.—CONCLUSION.

GENTLEMEN,—In the last two lectures I endeavoured to place before you the law relating to insanity; I shall now proceed to the concluding subject of my course—the law of Homicide; and as the medical session at the University has closed, I shall endeavour to compress into the present lecture as much original matter as I think is calculated to illustrate the subject to you.

I shall begin with a case, of which you will find the following notice in Dr. Christison on Poisons:—

“A very interesting trial lately took place in this country, when the fate of the prisoner depended, in a great measure, on the question within how short a time the effects of poison must shew themselves*! The nature of the case was as follows:—An apothecary's maid-servant, at Leicester, who was pregnant by her master's apprentice, was found one morning dead in bed;

and she had obviously been poisoned with hydrocyanic acid. A number of circumstances led to the suspicion that the apprentice was accessory to the administration of the poison. On the other hand, it was distinctly proved that the deceased had made arrangements for a miscarriage by artificial means on the night of her death; and it was therefore presumed, on the part of the prisoner, that she had taken the poison of her own accord. But the body was found stretched out in bed in a composed posture, with the arms crossed over the trunk, and the bed-clothes pulled smoothly up to the chin; and in her right hand lay a small narrow-necked phial, from which about five drachms of the medicinal prussic acid had been taken, and which was corked and wrapped in paper. There naturally arose a question whether the deceased, after drinking the poison out of such a vessel, could, before becoming insensible, have time to cork the phial, wrap it up, and adjust the bed-clothes. To settle the point, experiments were made, at the request of the judge, by Mr. Macauley, of Leicester, in presence of several other medical men; and on the trial, they (with a single exception) gave it as their opinion, founded on the experiments, that the supposed acts of volition, although within the bounds of possibility, were in the highest degree improbable. The chief experiments were three in number; from which it appeared that one dog was killed with four drachms in eight seconds, another with four drachms in seven seconds, and another with four drachms and a half in three seconds. For these particulars I am indebted to Mr. Macauley. The evidence of the majority of the witnesses appears to me quite correct. I conceive the medical evidence proves that some one must either have been present at the time the deceased took the poison or have arranged the body soon after death; for if she had time to cork and wrap up the phial, the case must have been of that slower description which is attended with convulsions, so that

* Trial of Freeman, for the murder of Judith Buswell, Leicester, April 2, 1829.

the body would have been in a discomposed attitude; and if the case was of the sudden kind, when convulsions do not occur, she could not have corked and wrapped up the phial, and also adjusted the bed-clothes. The prisoner was found, *not guilty*."

So far Dr. Christison. I happen, however, to have here, in my possession, a complete report of the whole trial, taken in shorthand by a professional reporter, but which has never yet been published*. From this manuscript I will read to you the evidence of the medical men who were summoned to attend.

"Mr. Thomas Paget.—Is a surgeon in Leicester; was called to Mr. Biggs's house on the 12th of February, at half-past seven in the morning. Went into the deceased's room, and found her lying on her back, with her head resting on the back of the bed-board. She was dead. Judging from the rigidity of the muscles, she seemed to have been dead four or five hours; did not stay many minutes; did not remove the bed-clothes; did not turn them down; told them to let the things remain as they were, and inform the Coroner immediately; returned about four o'clock in the afternoon; the room was in the same state as in the morning; the deceased was lying in the same form, with the exception of her left hand being nearer to her stomach; proceeded, together with Mr. Wilkinson, another surgeon, to examine the body; found the body in a state of freshness; attributed her death to her stomach containing a great quantity of prussic acid; the contents of her stomach were strongly impregnated with prussic acid; she was between six and seven months gone with child; the child was recently dead.

Cross-examined.—From experiments which witness has seen tried on animals, thinks it is possible she might have had the power of corking the bottle.

Re-examined.—The operation of prussic acid is always calculated by seconds; cannot tell how long half an ounce would be in its operation upon the human species; it would operate sooner upon brutes; has seen a small dog rendered insensible in ten seconds by the same quantity the deceased is supposed to have taken; has also given a cat half the quantity, which he conceives fully adequate to her frame; she was thirty seconds before she fell insensible; another cat, to which a quarter of the quantity was given, fell insensible within twenty seconds; mentioned this as shewing the irregularity of prussic acid in its operation; the two doses were out of the same bottle, shewing its effect on different constitutions; the last-mentioned cat was a stronger and larger cat than the

one which took thirty seconds to be rendered insensible.

By the Judge.—The animal appeared conscious of what it was about till the moment it was seized with convulsions; cats and dogs walk about the room for several seconds after having taken it till they are seized with convulsions; thinks deceased might have had knowledge to cork the bottle after she had taken the poison; thinks it is possible; cannot form an idea as to the probability: smelling the bottle will produce sickness and insensibility in some people; it will produce a sense of sickness, and in others insensibility; its force would not be weakened by being kept in a dark place a fortnight—thinks not; druggists are obliged to leave it and other poisons accessible to their apprentices for making up prescriptions; some of the experiments spoken of were made with the prussic acid that remained in the bottle.

Edward E. Wilkinson.—Is surgeon to the Leicester Infirmary; was with the last witness when the body of the deceased was opened; concurs with him in his opinion as to the cause of her death; is not able to form any opinion of the quantity of prussic acid taken into the stomach; saw the chamber-pot; a small piece of leather in it; it appeared as if it had been tied round the top of the bottle; there was likewise a small string, which seemed to have been used for the purpose of tying the leather round the neck of the bottle; was present when experiments were performed on the Wednesday.

Cross-examined.—The piece of leather was found in the pot; did not perceive there was any sickness in the pot; it was past four in the afternoon when he saw it; should think smelling prussic acid would produce faintness; has seen experiments tried this morning; if deceased took four drachms, should think she could not have power to cork the bottle; saw a dog take four drachms—it died in eight seconds; from what remained in the bottle produced, should think four drachms were taken by the deceased; never heard of prussic acid being taken to procure abortion—it might be possible.

Dr. Freer examined.—Was present at the time Mr. Macauley made experiments the day before yesterday with the acid found in the bottle; has been in practice as a physician twenty years; prussic acid is the most violent poison that is known; thinks its immediate effects would be in proportion to the strength of the dose administered; by being exposed to the light it might lose some of its effect; saw experiments made with fresh acid and the acid found in the bottle; it varied very little in its effect from the fresh; sixty drops is a drachm; thinks that after three or four drachms had been received into the stomach, a person would not be able to do the most trifling act—certainly not; thinks

* [We have been favoured with the MS. of this interesting trial, and hope to present our readers with a printed copy of it in an early number.—E. G.]

it impossible for a person after having taken such a quantity to put a cork into a bottle.

Cross-examined.—His judgment is chiefly from analogy; saw some experiments tried upon dogs the day before yesterday; never saw any experiments tried before; there were seven experiments; lays most stress upon the sixth experiment; four drachms and a half were given to a dog, and its effect was almost instantaneous; in his opinion three seconds had not elapsed before the dog was perfectly insensible; it was a sort of terrier, a small one; should imagine its operation upon the human species to be equally as speedy as upon brutes; its operation might vary according to the constitution; so large a dose is sufficient to destroy any constitution; never attended any person supposed to have taken it; have seen it administered in a small dose as a medicine. A dog which had taken twenty drops in five or six minutes recovered; the last experiment which was performed was giving this identical dog forty drops more; in twenty seconds he fell, howling; in thirty-five seconds he became insensible, but still breathing; in one minute he was gasping; in a minute and a half worse; in two minutes he appeared at his last gasp; in three minutes and fifty seconds he again gasped; by five minutes he was dead.—Experiment, No. 6. Four drachms and a half were given; in four or five seconds the dog was insensible and dead. No. 3 was a large dog, and double the size of the other.—Four drachms were given to him; half was lost in forcing the animal to swallow; he was a large setter dog; in thirty seconds he staggered; in forty seconds he fell; in one minute and a half dead; the immediate effect of the poison would depend on the dose taken; if food was in the stomach it would certainly make a difference; if it was a small dose it would retard the progress of the poison; if it was a large dose it would make little or no opposition.

Mr. John Needham examined.—Is a practising surgeon in this town; was present at the experiments to which Dr. Freer has spoken, and took the minutes; concurs mainly with him in what he has said; each animal was in a greater or less degree affected in a few seconds; one fell in half a minute; the acid taken by the deceased produced insensibility equally at the same time as the fresh, but it did not occasion death so immediately; deaths happened at forty seconds with the fresh, and at sixty-five with the other; the animals appeared in great distress, and endeavoured to eject; thinks the acid was deteriorated by the light; the comparative effect was precisely the same; insensibility was produced nearly at the same time in both the dogs; should think it was most improbable, and next to an impossibility, that the deceased could have had the

power of corking the bottle after taking the prussic acid, and put her hands under the clothes; comes to that conclusion from the experiments he has made.

Cross-examined.—One dog had forty drops, and one twenty before they fell; dogs require the same doses in other medicines as human beings do; cannot say as to the effect of the poison; saw one experiment made upon a horse; six drachms were administered; it began to be affected in a minute; fell in two minutes; was perfectly insensible and dead; its heart was beating; the heart beat many minutes after it ceased to breathe; it was full a minute before it was affected at all; thinks a horse would take strong poisons without being affected; might take half an ounce of arsenic.

Mr. Thomas Macauley.—Is a surgeon in this town; was present with Dr. Freer and others when the experiments were tried; concurs in the opinion they have given as to those experiments; received the bottle containing prussic acid, found in the bed, from Mr. Owston, previous to commencing experiments; measured the quantity of acid; there were more than three drachms, but less than four; about three and a half drachms; eight drachms is an ounce; some of the experiments were made with the identical acid that remained in the bottle; there was a difference in the acid taken from the bottle and the fresh acid; it was very trifling; has made previous experiments without a view to this transaction; without denying the possibility of it, thinks it extremely improbable the deceased could have corked the bottle; and from what he has read of the opinions formed by eminent medical writers, thinks it impossible it could be done, the operation having been done in the dark; has tried experiments on dogs and cats; its operation depends upon the dose; has given five, ten, and twenty drops; some have fallen directly, and some have walked after it for a short time; don't know what quantity deceased took; has seen dogs walk moderately well after a small dose; never saw one walk after a large one.

Mr. J. P. Stattard examined.—Is a surgeon in this town; been in practice twelve years; has studied surgery all his life; was present at the experiments spoken of, and agrees in the result; reasoning from analogy, it is not possible for a person after taking four drachms to cork a bottle; it is impossible.

Cross-examined.—Has seen the effect of prussic acid upon a human being, when given as a medicine; saw its effect upon his wife's sister; seven drops were given her, diluted; tried its effect upon a horse; after giving it three ounces it fell in two minutes and twenty seconds; another horse had six drachms given to it; it was dead sooner than the one that had three ounces. By the Judge.—Accounts for the quickness of the

operation where the six drachms were given by having applied some previously to the eye and nostrils of the horse. By Mr. Denman.—His wife's sister had a violent spasmodic affection; several persons were obliged to hold her; has seen seven drops put her in a state of semi-death, having previously been in great pain; she is now living."

Time will not permit me to go through other parts of the general evidence for and against the prisoner. He was found not guilty, it is true; but the circumstances were, by no means, so strong against him as Dr. Christison's notice would lead his readers to suppose. It did not appear in evidence that the arms of the deceased were crossed over her body, the bed-clothes pulled smooth up to the chin, nor was the phial wrapped up in paper as well as corked; while a material fact in the prisoner's favour, and which seems to have weighed much with the jury, was, that in order to administer the deadly dose, he should have opened three doors without noise, and passed through the sleeping-room of a fellow-resident (the shop-man of his master), in order to get at the apartment of the deceased. Nothing can be more correct than the inference of the learned Professor of Medical Jurisprudence; but it is to be regretted that he had not the whole of the facts before him.

I shall next mention another unpublished case of poisoning.

James Mason, the assistant of Mr. Samuel Russell, of Blythe, was tried at the Nottinghamshire assizes, in 1829, for poisoning a mare, the property of Mr. Russell, by giving her, with intent to kill, a quantity of sulphuric acid. I will read to you the medical evidence in the case, as it seems to be deserving of your particular attention.

"Edward Robinson, a Veterinary Surgeon.—Saw the pony on November 7th; examined her mouth; the lips swelled; the mouth ulcerated; sloughing. I think these appearances could not have arisen from natural causes. I think sulphuric acid would produce those effects.

Cross-examined.—Never before saw the effects of sulphuric acid on the mouth of a horse. It was Mr. Russell who then suggested that it might be sulphuric acid. Gave no opinion as to pony's life being in danger. Any caustic would produce those appearances; muriatic acid would. Never saw it applied to a horse. Sulphuric acid would burn clothes. It might be administered by a syringe, or bottle, if pony was quiet. Those appearances could not have been produced by natural causes; I have never seen them.

Re-examined Sulphuric acid would produce such effects on other parts of a horse; I have seen it done.

Samuel Peach, a Veterinary Surgeon.—Examined the pony on November 11th. Ex-

amined head and mouth. Ulceration and sloughing. It appeared to be from application of caustic. Sulphuric acid would likely produce those appearances. Stomach also in state of ulceration. Appearances also there. Duodenum partially inflamed. The appearances were most assuredly not from natural causes; sufficient to occasion the death of a horse. If sulphuric acid administered, effects would be instantaneous; I think it could not have been administered and pony have travelled seven miles. It would not alter appearance of mouth in less than a quarter or half an hour. I should think a horse would not eat corn an hour after application of sulphuric acid.

Cross-examined.—Most likely she died of constitutional irritation, produced by the spots. Examined lungs. Air-vessels thickened and obliterated, from chronic disease. Lungs might have lasted a long time. Could not say what acid had been employed; if nitric acid had been used, animal could not have gone seven miles. Froth would be the effect of moving the tongue, not the caustic. Never had any doubts of cause of death of pony; never said he would defy any man to say whether the mare was poisoned or not. The immediate effects of acids are well known to medical men.

Thomas de Grey Brewerton.—Live at Bawtry; surgeon there; in the habit of making experiments in chemistry; examined pony after death. The appearances: mouth were as if corrosive liquid had been put on the tongue, and then ran under the tongue, over the lips, and out of the mouth; a similar effect was produced on stomach, at upper orifice of stomach, and duodenum. I speak of effects of corrosive liquid, not of inflammatory appearances besides. Took home with me part of the tongue, lip, and the duodenum, for purpose of trying to extract liquid made use of. The result, particularly as relates to the tongue, was, that it afforded, on chemical examination, a larger quantity of sulphuric acid than could be expected to be found either in saliva of horse or soft parts of the mouth, as they are not known to contain any sulphuric acid. In my judgment, sulphuric acid occasioned the animal's death. Have examined a healthy tongue; found no sulphuric acid in it. The effect of destroying the vitality of the surface would be instantaneous from sulphuric acid.

Cross-examined.—I examined a healthy tongue that I might have fact as well as theory. Prisoner had once been at my house. His general reputation and character were good. I should presume that he would know that sulphuric acid would produce those effects.

Benjamin Robinson, a Physician at Retford, of thirty years' practice.—Sulphuric acid, I conceive, would produce excruciating pain. I should think the animal would shew pain

and uneasiness. I think it could not be passive. I think, if capable of living several days, would often exhibit symptoms of pain. I think it more probable that the horse would reject the acid than let it go down the throat. If the stomach was acted upon by such an acid, the œsophagus could not be in a healthy state. Cases I have heard of where the mucous membrane of the stomach has become inflamed; the result of inflammation in the mucous membrane is ulceration and gangrene. I think it possible that inflammation may take place in mucous membrane, setting aside the detection of the sulphuric acid which has been spoken of by one witness. I am of opinion that all the other symptoms might have been produced by natural causes, without human agency: mouth sympathises with stomach. From my knowledge, the statement respecting the sulphuric acid surprised me.

Cross-examined.—Lying down and getting up are symptoms of pain. These more a symptom of cholic and pain in the bowels. I should not suppose the getting up and lying down to be a symptom of pain in the stomach. If the evidence of the presence of sulphuric acid be true, it must have been introduced into the mouth. It is possible that part, by means of a syringe, might go down the throat—not physically impossible. A common occurrence in disease for mouth and fauces to be affected by sympathy with disease of stomach. I should think the appearance of the mouth could not have come on so suddenly from natural causes if horse had begun to eat his corn; appearances would be gradually coming on.

Re-examined.—If the sulphuric acid administered were through a syringe, it would affect the syringe. On a leaden syringe sulphuric acid acts slowly.

Jonas Kewney, a Veterinary Surgeon of Nottingham.—Have heard evidence of the witnesses: have heard appearances described; I think the appearances could not have arisen from natural causes; I think from application of caustic. Have frequently seen ulcerated mouths, but not that species of ulceration; have seen inflamed stomachs, occasioned by feeding on cut straw; heard gullet described; gullet would have exhibited great inflammation, if not ulceration, if sulphuric acid had passed into the stomach. From a horse lying down should think he had pain in his stomach or bowels; the lining of the gullet is not insensible, but less sensible than other parts; course of sulphuric acid would be rapid over the gullet; if the pony were eating his corn at the time, it might have passed over his gullet without producing inflammation.

Re-examined.—If given with a syringe I should think it would not pass into the stomach; gullet two feet long; if there was

corn in the mouth the gullet would be the more likely to reject the acid.

John Calthorpe Williams.—I think the œsophagus could not have been untouched if sulphuric acid had been introduced into the mouth; the evidence as to detection of sulphuric acid has quite surprised me; I should have thought it impossible to have detected presence of sulphuric acid after that length of time; I should expect the sulphuric acid would be changed by changes of body; I should scarcely think the acid could be reproduced after ten days; acid cannot be reproduced so well after put on living matter as on dead; not aware that the gullet is more insensible to chemical agents than other coats; gullet contracts when food passes; it does not go down by its mere gravity."

We will next proceed to some charges of homicide, which have been occasioned by other means than by poisoning.

In a case tried at Nottingham a few years ago, a prisoner was indicted for murder, in cutting a person's throat. It was proved in evidence that the deceased's throat was cut; but that he had also received a severe blow, with a crow-bar, on the head. No medical witness was subpoenaed; but the judge asked, "Is there any medical gentleman in court?" Upon which a gentleman rose up and said, "I am one, my lord."—"Have you heard the evidence?" "Yes."—"Have you formed an opinion respecting the mode in which the deceased met with his death?" "Yes; that he died by the cutting of the throat, and not by the blow on the head?"—"What are the grounds of your opinion?" "Because the injury on the head, according to the description of it, though I think it would have produced death ultimately, would not have produced it so soon as it appears from the evidence the death must have ensued: and also because, if the deceased had been killed by the blow on the head, and afterwards his throat had been cut, so large a quantity of blood would not have flowed, as it appears from the evidence did flow from the wound." The opinion expressed by the medical gentleman was acquiesced in by the judge and the jury, who, but for his accidental presence in court, might have acquitted the prisoner.

At the last assizes at Warwick, a child was proved to have died of a fracture of the skull on the back part of the head, just above the ear. The evidence was, the child had been put out to nurse with the prisoner: the prisoner was proved to have come down stairs, leaving the child in a room above stairs; the prisoner returned up stairs, and in two or three minutes came down again screaming, and desiring that the mother of the child might be sent for. The child was found dead on the floor. The prisoner had been heard, a week or more before, to use

expressions of dislike to the child, as, by saying, "it should eat its own dung." The prisoner's case was, that the child had fallen out of bed on the floor in a fit, and so had met with its death. The prisoner said, that, in going up stairs, she heard a "bump on the floor." The case on the part of the prosecution was, that the prisoner must have knocked the child's head against the bed-post, or some hard substance. Only one medical witness was called, who swore, that, in his opinion, it was impossible that the child could have met its death by a fall. I should tell you, that the bed, from which the child was supposed to have fallen, was two feet high from the floor; the child was sixteen months old; and the injury, as I before mentioned, was on the back of the head, above the ear. The surgeon was very much pressed by the judge, the counsel for the prosecution, and the counsel for the defence, who all seemed desirous of shaking his testimony. It appeared that he had only been three years in practice. At last the surgeon was got to say, that it was *not absolutely impossible* that the death might have been occasioned by a fall. And, upon this, the jury acquitted the prisoner.

In a trial for manslaughter at Lincoln, the prisoner and a constable had been struggling together, and the prisoner was striking at the constable with a spade; the spade glanced over the constable's shoulder, and hit the deceased, who was engaged in pulling away the constable. There was no doubt upon the point of law, that, although the blow was not intended for the deceased, the act would be equally as criminal as if the blow had fallen on the constable. But there was some doubt as to the question, whether the deceased died in consequence of the blow he so received. The medical evidence was as follows:—Mr. Harvey: "I am a surgeon of Lincoln; was called in to the deceased; he was sitting by the fire; had a handkerchief round his forehead; one inch above his eyebrow there was a lacerated, incised wound, from an instrument with an edge—it might have been from a spade; found the skull fractured; there were two or three spiculae, or small portions of bone; I was called in on the 11th, within an hour after his receiving the injury; I attended him till the 17th; he died on the 18th. Opened his head after death; he died of lock-jaw; lock-jaw attends on wounds slight or serious; the ultimate cause of death was the lock-jaw; cannot say positively that the wound occasioned death, because the disease of lock-jaw is imperfectly understood even by the first of the faculty; there were nerves very near the part injured; if the nerves received an injury from the wound, it would account for the lock-jaw and subsequent death; believe that the wound did occasion the death; can-

not speak positively; the wound was not sufficiently serious to have occasioned death, if lock-jaw had not ensued; if the deceased had applied brandy to the injured part, it would have produced great irritation; a very little scratch of the skin will sometimes produce lock-jaw; the brain was not injured." Mr. Best, surgeon: was called in on the 17th, at two o'clock in the afternoon (the injury occurred on the 11th, the death on the 18th); lock-jaw had not then taken place; there were symptoms of approaching lock-jaw; the lock-jaw was complete in two days after its first commencement; fair to presume that the death was occasioned by the wound; lock-jaw very likely to arise from such a wound, though it frequently arises from other causes, as from cold; and this was Christmas time, and very severe weather. The wound was one inch above the right orbit, and nerves were very near the wound; a prick from a needle or a thorn will sometimes produce lock-jaw. Found no cause of death but lock-jaw, and no cause of lock-jaw but the wound; had not an opportunity of observing whether any nerve was injured; should not have said, *a priori*, that the wound would have occasioned lock-jaw, or death. On which the judge asked, what would you say *a posteriori*? Answer.—Having heard what I have heard in Court, it is no matter of surprise to me that lock-jaw followed from the wound. The wound was very superficial; no sloughing, no discolouration, no extravasation of blood, nor the slightest inflammation; not one vessel turged; no fissure or fracture, a mere superficial injury to the outer table of the skull. I considered it a very superficial blow, not likely to produce death—a very slight wound at first. The judge left it to the jury whether, in their judgment, the death was occasioned by the blow; and he said, that in his judgment the lock-jaw was occasioned by the injury to the head, as there was no account of any previous illness; and the jury found the prisoner *guilty of manslaughter*; though it was very doubtful whether the offence did not amount to murder.

I have often seen medical men very much puzzled when the question is put to them, whether they believe the death of a person was occasioned by an injury proved in court to have been received, particularly where the injury has been capable of producing death, but the death might, without any violent improbability, have proceeded from another cause. In a trial for manslaughter at Derby, the prisoner and the deceased had been wrestling. The prisoner had thrown the deceased with his head on a stone-floor by an underhold from the thigh; he then seized hold of the deceased by the throat, and beat his head several times against the floor. This was about ten

o'clock at night, and the deceased died about four or five the next day. He died on a Saturday. On the next Monday the head was opened, and the scalp removed. A great quantity of coagulated blood was found between the scalp and the bone of the skull. There was a wound on the right side of the head, on the parietal bone, an inch and a half in length, and penetrating through the scalp to the skull, but no fracture of the skull. There was a quantity of extravasated blood on the opposite or left side of the head. There was a rupture of some branches from the carotid artery inside of the skull. There were two discolorations on the neck, on the left side of the windpipe, apparently occasioned by the pressure of two fingers. The laying hold of the neck might be the occasion of a rupture of the vessels, being more easily made, by preventing the blood from returning. The surgeon, after giving this description, was asked whether, in his opinion, the death was occasioned by the injury proved in evidence. He said that the death might, or might not, have been occasioned by it. The death might have arisen from other causes. An apoplectic fit might have occasioned it. The surgeon had seen blood in the cranium of persons dying from apoplexy. The effusion of blood occasioned the death. "The deceased, when I was first called into him, was not able to see; this was on account of the pressure of coagulated blood on the optic nerve; the occasion of death was the pressure of coagulated blood upon the brain; not able to speak to the cause of the rupture in the brain; should think it highly probable that the injury received was the cause of death—it was certainly sufficient to account for it." I should observe, that in this case the Judge was very angry with the witness *for not stating at once that he believed the injury was the cause of death.* And the Judge made game of the witness by telling him to pause; not to commit himself hastily; to take time to consider; and using other such like sarcastic speeches. But the witness might have said that the blows were a sufficient cause to have accounted for the death; but that apoplexy, also, brought on by great excitement and drunkenness, was a sufficient cause, and the appearances within the head would be the same from either (which of the two, however, was the more likely cause, under the circumstances, to have occasioned death, is not so much a medical question as an inference to be drawn by the jury from the evidence of the witnesses); and that the utmost the surgeon could say, would be, "here is a cause sufficient to account for the death; still the death might have been occasioned by another cause, and whether that other cause existed or not, it is quite impossible for me to say."

I may mention, by the way, that in this case a surgeon was called upon in the night,

just after the injury was inflicted; but he did not come till the next morning at ten o'clock. When he came, he said that the man was dying, and *therefore* there was no occasion for him to stop. He went away without examining the man's head, though he had been told that the man had received a severe injury upon his head. The Judge told this surgeon that the account did not do much credit to his humanity, and asked if the people in that county had not heads or brains? Upon which the counsel said, "it appears, my lord, that the doctors in this county want both."

In another case of manslaughter, the surgeon proved that there was a swelling under the angle of the jaw on the right side. On removing the integuments from the swelling, there was a considerable extravasation of blood discovered. The surgeon then opened the head, and found a copious extravasation of blood at the base of the skull, which, in the witness's judgment, was produced by a blow under the angle of the jaw; and the surgeon was of opinion that the blow had struck upon the internal jugular vein, occasioning a rupture of a vessel within the skull, giving rise to the extravasation. Some witnesses had sworn that the prisoner had kicked the deceased on the neck whilst he was lying on the ground; and the surgeon was asked in cross-examination, if there was any mark of a foot on the neck. The surgeon said no, but observed that the deceased, having a neckcloth on, the neckcloth would prevent there being any distinct impression of a foot. The deceased was a prize-fighter, and he had been fighting in the middle of the day, some hours before he received the injury which occasioned his death. The fight was at 3 o'clock, and the kick was given at about 7 in the evening; and the counsel for the prisoner endeavoured to make out, from cross-examining the surgeon, that the deceased might have died from some injury received in the previous fight. Fortunately, however, for the ends of justice, the surgeon had not merely examined the head of the deceased, but had examined all his body; and although he found several bruises on various parts of his body, yet he could say, from their yellow colour and general appearance, that they were not recent bruises.

And though it be more a purely medical than a medico-legal point, I will mention, that in a case of manslaughter at Lincoln, the deceased had been killed by a blow on his side with a knife. The surgeon said that he found the deceased bleeding from a wound in his side; the wound was an inch long, through the cartilage of the ninth rib; part of the omentum protruded through the wound two inches, and a little more; the omentum itself was wounded by the knife; it could not be returned through the opening—the open-

ing could not be enlarged with propriety; if the opening had been enlarged in one direction, the diaphragm would have been injured: "I cut off the omentum; I have read of many instances of persons recovering after such an operation had been performed, but I never knew of an instance within my own practice."

I shall now conclude my lecture, and the present course, with the facts of a case which occurred more than twenty years ago, and which I believe is not mentioned in any books of medical jurisprudence. I shall only read you the medical evidence. The question in the case was—whether the deceased had died from the blow of a spade, inflicted by the prisoner, or whether he had died by a kick from the hoof of a horse.

"*Thomas Owen Jones* examined.—The witness is a surgeon, and lives at Henley; was sent for to attend the deceased; got there about half-past four o'clock; Mr. Burman was there before him. Both of them immediately proceeded to examine the body of the deceased. In turning the body, a prodigious effusion of blood took place, with a small portion of the brain issuing from the nostrils. They then ordered the body to be carried up stairs, and it was; there it remained till the following day, when they examined it minutely. On Saturday, the first wound they remarked was one on the left side of the head, about five inches long, extending from the front part of the head towards the back part; along the parietal bone, that above the ear, it was straight, without contusion; it had the appearance of an incised wound, inflicted by an instrument not having a keen edge. There was another wound above that, smaller, he believed—about two inches, or not so much: it was within half an inch of the other, or thereabouts; it was of the same nature as that below—straight and incised. On the right side of the head there were three wounds, two wounds about four inches in length; those wounds were on the parietal bone also; the third wound was lower, upon the temporal bone: these wounds were rather irregular, partaking both of lacerated and incised wounds. There was one on the hind part of the head about two inches and a half long; there was not any tumefaction round any of the wounds, the integuments adhering firmly to the bones; except where the wounds were inflicted, the fracture of the skull was general throughout the right side; it extended along the back part of the head towards the left side; a small portion of the temporal bone came away. He thought those wounds could not be inflicted by a horse. The reason why they could not was, they were all distinct, and the integuments adhering so firmly it was evident that they must have been made by an instrument. If the wounds had been given by the kick of a horse, they would

have been in a perpendicular direction instead of a lateral one, if the person lay on the ground at the time the wounds were inflicted. If the deceased had been standing up, all those wounds could not have been inflicted on the head in the manner the witness saw them; he must have fell from the first blow. If the horse had kicked the deceased when he was up and down, they would have been different, he thought; the wounds would have been perpendicular in some measure, and not all lateral. He had no appearance at all of being kicked, or any other wounds on any other parts of his body; there was a very slight discoloration on the breast-bone that he did not think worth notice. If the horse had kicked him on the chest, it certainly would have had other discoloration and appearance. He examined the mare that was near the body of the deceased; he examined her hind feet; there was no blood, none is the least; he looked to find if there was any most accurately. There was no shoe on the off foot behind; there was a shoe on the near foot behind; it was particularly smooth. From the state of her feet, when he viewed them, he did not think it possible for the wounds to be inflicted by that mare. He had no doubt upon that subject from his knowledge and experience.—Q. We understand that the hat was upon the deceased's head when he was first found: look at that hat, and examine it. Would it have been in that state if it had been kicked by any horse? A. In order to produce the wounds I have spoken of, the hat must have been cut.—Q. From your judgment am I to conclude they could not have been made with the hat on the head? A. They could not.—Q. You have no doubt? A. I cannot have any.—Q. Was it possible for the deceased to have put on his hat after having received those wounds you have been describing? A. Oh! no, sir.—Q. Would any of those wounds, or either of them, have killed him? A. Those on the right side would unquestionably have killed him.—Q. Would they not have produced instant death? A. They must necessarily have produced death instantly.—Q. You took the spade from Allibone? A. No, I did not.—Q. Will you look at that instrument? Did you observe any blood at the time? A. Yes, I did.—Q. Will you point out to the jury where it was? [Here the witness took up the spade, and described the blood to have been on both sides, and on the front side florid, near and close under the left tread.] A. The blood under the left tread was very florid.—Q. You say very florid? A. Yes, it was.—Q. As to the other? A. The blood on the back part was not so florid by a great deal; it was absorbed by dirt.—Q. What judgment do you entertain as to the blood there being absorbed? A. It must have been in a fluid state, otherwise it could not have been ab-

serbed.—Q. Look at that instrument (the spade): I desire to know whether, in your judgment, it would not have produced those wounds which you saw? A. It would, or any similar instrument.—Q. You said there was no tumefaction? A. None at all.—Q. If inflicted by a horse-shoe, would there not have been a great deal of tumefaction and contusion? A. By the kick of a horse, it would have produced a great deal of it; there was none by these wounds.

“Cross-examined.—Q. What I understand you to mean by an incised wound is, one inflicted by an instrument with a keen edge, which will not bruise? A. Yes. And that a wound inflicted by an obtuse instrument will be both cut and bruised? A. Yes.—Q. How long have you been at Henley? A. Seventeen years.—Q. Have you had fractures under your care from the kick of a horse? A. I never have been called to one whose skull had been fractured by the kick of a horse.—Q. Then this opinion is all speculative and conjectural? A. Certainly; I did not see it done.—Q. You never before examined such a fracture, therefore it is conjectural; look at that shoe, and say whether, in your judgment, a similar wound could not have been inflicted with the one as with the other. [Here he showed him the shoe and spade, and asked whether the shoe would not have inflicted a wound similar to one inflicted by the spade?] A. No, it could not when applied to a horse's foot.—Q. Do you mean to say, none of these wounds were curved? A. They were not, they were irregular; but I must call them straight.—Q. I must ask you whether the edge of the hoof has not a sharp appearance? A. Certainly it might.—Q. Is it capable of giving a wound both lacerated and incised? A. Certainly it would.—Q. You have told us you were not called in till after the body was removed, so that you cannot tell us in what condition the hat was when it was found. Is it impossible to receive a fracture with the hat on, and it not cut? Was it impossible to receive these wounds without the hat being cut? A. I do not think they could without the hat being cut; not wounds of that nature.—Q. Do you mean to swear that they could not but without the hat being cut? A. It is so in my judgment. [Here his lordship observed, that he remembered an instance where it was proved, on a trial at the Old Bailey, that a cut and fracture had been received, and the hat not cut.] Q. Then men may receive wounds on the head of that nature, and the hat not be cut? A. I did think they could not till my lord said otherwise.

Re-examined.—Q. Supposing the body had been kicked while on its legs, would it have produced the wounds you have seen? A. No, it would not.—Q. Could those six

wounds have been inflicted without the hat being cut? A. It must have been cut.

Mr. Thomas Burman examined.—Witness was a surgeon, lived at Henley; was present at the time Mr. Jones was at the house of Mr. Booth; examined the body of the deceased with Mr. Jones. Q. In your judgment by what sort of instrument were these wounds inflicted? A. Had I only seen one on the right side, I should have supposed it had been done by the kick of a horse-shoe; but what made me suppose these were not was the slight separation of the integuments from the cranium, and the wounds being distinct; I thought then they could not have been done by the kick of a horse.—Q. Was there more or less of contusion than would have been occasioned by the kick of a horse? A. There would have been greater contusion, and separation of the integuments: these were the appearances which I observed on the integuments, but I don't exactly recollect any other appearances. It appeared to me they were inflicted by an obtuse instrument.—Q. Will you look at that spade. In your judgment, could they have arisen from that? A. More probably from an instrument like that than from the kick of a horse. I have been called in to four cases, and in all of them the wounds were inclined to curve.—Q. What was the shape of these which led you to conclude that they could not have been inflicted by the kick of a horse? A. There was no inclination to curve.

Having now concluded my present course, I may take the present opportunity to observe, that next year, if there be a sufficient demand for the information, it is my intention to give lectures, not only upon what may be strictly called medical jurisprudence, but also upon the laws of the medical profession, and all those legal points which a medical man is likely to meet with in the exercise of his professional practice.—(Loud and continued applause.)

SOME ACCOUNT OF A

CASE IN WHICH CHRONIC TUMOR WITHIN THE ABDOMEN

Was produced by a large Accumulation of Contents in the superior portion of the Colon, expanding and rendering useless the Valve of the Cæcum; with the course adopted by Nature for preventing the inconveniences that might thence have resulted.

By JOHN HOWSHIP,

Surgeon to the St. George's Infirmary, and Lecturer upon Surgery.

JULY, 1830, I had the opportunity of examining the body of a tall, stout

woman, aged 72, who after many months confinement to bed had died, with the usual symptoms of disease in the uterus.

Upon inquiry of those who had attended upon and nursed the patient, I ascertained that she had complained of constant pain in the bowels for the last twelve months, with a sense of swelling, or tumor, within the abdomen; which swelling was very large, and, as the nurse said (who had frequently examined it), felt uniformly soft and yielding, like a sponge, being principally situated in the right side; although, in changing the position in bed, she had found it, like a great weight, fall from side to side. If, for instance, she lay on the right side, a part of it seemed to roll over to that side; and if she turned over to the left side, she immediately felt the heavy mass fall over to that side, with a dragging sensation hardly to be borne.

The frequent magnitude of this tumor within the abdomen was said to have equalled, or even exceeded, that of a pregnant woman at her full time; and this remark the patient herself had repeatedly made. After death, the existence of tumor in the right hypogastrium was sufficiently manifest to the eye; it now felt soft, flaccid, and pulpy.

Laying open the cavity of the abdomen, I found this tumor was caused by a considerable enlargement of the whole of the colon, but particularly, as it appeared, of the cæcum and adjacent part of the great intestine. The peritoneal covering also, of these parts of the intestine, was so relaxed and elongated, that the weight of the parts, when the body was laid on the left side, brought the cæcum down to the middle of the abdomen.

Passing a ligature round the middle of the transverse arch, I removed the cæcum and superior portion of the colon, washed out the contents—a very large quantity of stiff and pulpy, yet well-digested, feculent matter—and then tying the lower opening, inflated the intestine from the ileum.

In this operation I was repeatedly struck by observing, that although the air passed down freely enough into the cæcum and colon, not any appeared to escape back again into the small intestine. This circumstance I could the less understand, as it appeared that the

portion of gut, where the cæcum is parted off from the colon, was so enlarged, that the valve there situated was in all probability useless. The inflation, however, was completed, the ileum tied up, and the preparation hung up to dry.

The next day, expecting to see it dry and expanded, I found it damp, flaccid, and collapsed. The tied end of the ileum was therefore cut off, the intestine moistened in warm water, and again inflated, when it seemed that the air escaped, although I could not discover where, till Dr. P. Robertson, who was with me at the time, suggested the placing it under water; we then perceived the bubbles of air rise from a minute ulcerated opening in the cæcum, which, neither thickened nor discoloured, would otherwise have escaped detection. This secured by a ligature, the intestine retained the air, and was soon dry.

On subsequently cutting an opening into the cæcum, I was so fortunate as to find that the peculiar and very curious state of the parts was well demonstrated.

The original valve of the cæcum, as I had anticipated, was so expanded and drawn aside, by the progressive enlargement of the cavity of the gut, as to have been, for a long time, entirely inefficient; and the consequence was, that nature, ever watchful over the movements of the animal machine, had contrived (the first valve failing) to form a second, by the readiest and most ingenious device imaginable—that of simply drawing the inner membrane of the gut across the termination of the ileum, in the cæcum.

The dried preparation, which is preserved in my collection, demonstrates the enlargement of the cæcum and colon, the expanded figure of the original valve of the cæcum, and the position and appearance of the new valve closing the opening from the ileum; an opaque middle line marking the junction of the two portions of the valve.

Observations.—In some practical observations on the diseases of the lower bowels, published several years since, I endeavoured to state clearly what I had seen, in proof that permanent lodgments occasionally take place within the cells of the colon, notwithstanding the apparently free operation of active

purgatives. This fact I was desirous to state clearly, because it is a point upon which I had myself been extremely sceptical; but the proofs there adduced are, I apprehend, so conclusive, as to render any further evidence of the fact unnecessary.

In the present case, however, the condition of the intestinal canal was such as was altogether new to me, and such as I could not have anticipated. The colon presented no cells or recesses, nor any portion of the great intestine a point of contraction, either from disease or permanent spasm; the whole of the colon and rectum being found, on examination, perfectly free, and moderately occupied. In fact, although the usual habits of the bowels had been those of confinement, for the last fortnight of the patient's life, they had been constantly and copiously relaxed; and notwithstanding this relaxation, the same large tumor appeared to remain, which had for a twelvemonth before induced various feelings of uneasiness, and frequently those of great distress; and this, notwithstanding there must at all times have been a free way through the midst of the mass so often as the bowels were relieved, either by spontaneous action, or the operation of medicine.

21, Saville Row, July 25, 1881.

ATMOSPHERICAL CHANGES DURING THE PREVALENCE OF THE LATE "INFLUENZA."

To the Editor of the London Medical Gazette.

SIR,

THE late "influenza" was, perhaps, modified or occasioned by atmospheric changes, or, as Sydenham would have said, by "the constitution of the year." If the following sketch of the state of the weather be worthy of your notice, it will find a place in the columns of your journal; for it may, in some degree, account for that excitement of the air-passages of the human body which has so lately prevailed, and been denominated "influenza;" and it may probably explain the cause of that mental and bodily debility which accompanied or followed that singular affection. It will be seen that the respiratory mucous membranes were first

parched and afterwards moistened by the changes of the atmosphere, and that the whole body was first excited and then depressed by the same causes. Such circumstances will always control and direct the conduct and practice of a thoughtful man.

During the month of May the weather was unusually variable; the barometer rising and falling suddenly, and the thermometer standing one day at 80 deg. Fah. and a few days afterwards at 32 degrees; the wind was prevailing steadily from the north-east. The month commenced with heavy clouds, murky storms, copious precipitations of rain, and remote thunder; the thermometer ranged from 55 to 60 degrees, and the wind blew for a few days from the west and then shifted round to the north. This condition of atmosphere was succeeded by an over-cast sky, with intervals of sunshine, a keen cutting wind from N.E., frost, ice, and snow; the thermometer rapidly sinking to 32 degrees. Great-coats, which had been thrown off, were resumed, and the fire-hearth became acceptable. By the middle of the month the weather cleared and became warmer, the sky brightening; a high blustering wind prevailed from N.E., drifting before it clouds of dust from the roads, the thermometer ranging with celerity between 62 and 32 degrees. During the severest interval of this weather ice was formed upon the ponds at night, the early fruits were partially blighted, the petals of the new-blown rose dropped from the shrub, and the hedge-row box seemed, as it were, singed—"the frosty air-burnt froze." The north-east wind was heightened into a gale, by which several vessels were drifted from their moorings in the pool of the Thames; and a heavy atmosphere, a calm, and a soaking rain, followed. From this time (20th) to the end of the month, either a grey mist, with a hot sun, 80 degrees, occasionally gave way before a gelid wind 40 degrees from N.E., the usual forerunner of storms and thunder, or the soil became dry and dusty under a light sunshine with fleeting cloudlets, or a sultry sun gleamed through a hazy atmosphere. The thermometer stood at night 33 degrees, and in the day varied between 50 and 80 degrees. A pelting rain, N. 50 degrees, and a fine, clear, breezy day, W. 60 degrees, closed the month. Then followed the month of June, remarkable only for a high tem-

perature, a singular humidity of air; a soft wind from the S.W., and a bright hot summer's sun. During the first days of the month, the sunshine was interrupted by a light rain; once by clouds, rain, and a gale from north 40 degrees; and occasionally by transient hail-storms and remote thunder. The thermometer ranged between 40 and 80 degrees, but it generally varied between 75 and 60 degrees; and this was the month in which the influenza, so well described by Dr. Burne (see *Med. Gaz.* July 2d, 1831), made its appearance.

All things are intelligible if we have the patience to investigate them; and although the influenza be called specific, epidemic or adventitious, it will yet be found to depend upon very simple and obvious causes. If the cholera morbus appear in England, observation, diligence, meditation, and humane experiment; will reveal its nature, develop its mode of action, discover the appropriate remedies, and ascertain the conduct of cure. Physiology, pathology, and meteorology, well applied, will supply much more practical knowledge than the idle satisfaction of asserting that many diseases are *specific* diseases.

J. A. HINGESTON.

1, Finsbury-Place, South,
July 23, 1831.

ANALYSES & NOTICES OF BOOKS.

"L'Auteur se tue à allonger ce que le lecteur se tue à abréger."—D'ALEMBERT.

Medico-Chirurgical Transactions. — Vol. XVI.—Part II.

THE more regular appearance of these volumes now than formerly, shews an increased degree of activity on the part of the members; yet we fear the Society is kept up only by the personal efforts of a few—the profession at large take but little concern in it; and it would be uncandid to say that the present volume of papers, which we have a right to infer are the last which were read, is calculated to make us feel deeply the loss of those we have missed by not being present at the meetings. By far the most important communication—that of Dr. Lee, on uterine phlebitis—we have already noticed very fully in

two of our previous numbers. One article will embrace all that is interesting in those which remain.

Remarks on Omental Hernia, with Cases. By JOHN MACFARLANE, M.D. Member of the Faculty of Physicians and Surgeons of Glasgow, Senior Surgeon to the Glasgow Royal Infirmary, and Senior District Surgeon to the City Poor. Communicated by ALEX. COPLAND HUTCHISON, F.R.S. L. and E. Vice-President of this Society.

This is a good paper, and shews the writer to be an intelligent and discerning surgeon: nevertheless it is much too long, being diluted with many observations fitter for the lecture-room than the halls of a learned society. The chief object of the author appears to be to point out the evils which result from irreducible omental herniæ, and the advantages of setting them free where this can prudently be done. To these points we shall confine ourselves.

"In irreducible herniæ of large size, whether intestinal or omental, the patient is not unfrequently subject to smart attacks of colic, with pains in the tumor, after taking a hearty meal. When the rupture consists wholly of omentum, the pain commences almost immediately after eating, but when of intestine, the uneasy feelings are longer in appearing, and seem to take place only when the contents of the intestinal canal are passing through the tumor. Besides these symptoms, an irreducible epiplocele is often accompanied by severe dragging or twitching at the stomach, and by repeated vomitings, in consequence of the stomach being compelled to follow the motions, communicated to the *fixed* omentum, by the intestines and abdominal muscles. These symptoms are, also, most urgent after meals, because, from the distention of the bowels, the stomach is pushed up towards the diaphragm, and the omentum put more completely on the stretch, and also rendered more convex externally by the pressure of the intestines.

"As the stomach and colon become accustomed to the restraint arising from this unnatural fixture of the omentum, we occasionally find that the urgent symptoms gradually diminish, or even altogether disappear. This fortunate result has been, however, less fre-

quent in my practice, than from the assertions of Pott, Boyer, Cooper, and other writers on this subject, I was led to expect. It cannot be denied that the membranous viscera of the abdomen are less firmly fixed in situ, admit of greater freedom and latitude of motion, and may, therefore, be more completely and extensively displaced from their natural position, than those of a different structure. The mobility of the stomach, and that part of the colon to which the omentum is attached, is well known; yet there are limits, beyond which these parts cannot be displaced, without deranging, or altogether impeding, their functions, and of course exciting painful, and even dangerous symptoms.

"When the distention of the abdomen is moderate, an irreducible epiplocele may cease to produce any disagreeable symptoms; but when the stomach is full, the bowels constipated, and unusually distended with flatus, or feces, when much straining of the abdominal muscles occurs, we cannot fail to meet with very distressing symptoms. It is the liability of the abdomen and its contents to great and often to sudden variations in size, even in healthy individuals, that enables us to explain the repeated recurrence of these painful paroxysms. They are generally more urgent when the omentum is suddenly; than when it is slowly, put on stretch; yet even in the latter state, they are sometimes marked and severe.

"A few years ago, a woman about twenty-eight years of age, who came under my care for a different disease, had a considerable-sized, irreducible, crural epiplocele of the left side. She had experienced for several years repeated attacks of dragging at the stomach, vomiting, and constipation; but these were mild when compared with the violent, incessant, and distressing attacks to which she was subject after she became pregnant. As the abdomen became more and more prominent, the severity of the symptoms increased. During the last two months of pregnancy, she was constantly confined to bed, and only experienced relief when she lay on her left side, with the trunk bent forward, and the thighs drawn up to the abdomen. She could not extend herself in bed, nor assume an erect position, without immediately exciting

vomiting and pain at the stomach. The relief she experienced after delivery was very decided.

"When an inguinal epiplocele has been long irreducible, we sometimes find that the omentum becomes so altered in structure as to produce, by pressure and irritation on the spermatic cord, a diseased state of the testicle, with or without effusion into the tunica vaginalis.....

And again:

"We are advised by Hey, Scarpa, Boyer, Richerand, and other writers, not to separate the adhesions which the neck of an omental rupture may have contracted with the neighbouring parts, particularly when the disease is of long standing, but to cut off the prolapsed portion, and allow the rest to remain in the wound. Of these authors, some appear to be influenced by the fear of hæmorrhage taking place into the abdomen, from the cut edge of the omentum; whilst others maintain, that the hernial aperture is in this way effectually plugged up, the return of the disease prevented, and a firm surface obtained for granulations. Sir A. Cooper, even, in his valuable work on *Hernia*, speaks (at page 32) of returning the omentum into the abdomen, with its cut edge to the sac, so as to form a plug, and produce a closure of the opening.

"By permitting the divided omentum to remain fixed at the mouth of the sac, a temporary closure of the aperture will be effected, and the immediate descent of any portion of intestine or omentum for a time prevented. But, on the other hand, besides the danger of the intestines adhering to, or becoming entangled with, this fixed band of omentum, there is the risk of a second hernia forming at the same aperture. When the abdominal muscles are called into powerful action, the fixed omentum serves as an inclined plane, along which the intestines glide, and by which the impetus will be more effectually directed to the old hernial aperture, than to any other part of the abdominal parietes; and, of course, the risk of a secondary tumor forming be greatly increased.

The baneful effects on the stomach which, in nine cases out of ten, will be found to accompany the permanent adhesion of the omentum to the inferior hernial openings of the abdomen, are also entitled to our consideration. Some-

times the function of the stomach is only at times impaired, but in other cases this viscus has been dragged from its natural position, even below the middle of the abdomen, digestion destroyed, the most painful symptoms excited, and bad health ultimately induced. In addition to what has been already stated, I select the following cases out of many on record to prove this fact.

"M. Guerin saw, in the Hôpital de la Charité, a man upon whom the operation for strangulated hernia was performed, and a portion of gangrenous omentum removed, the healthy part being allowed to remain in the wound. The wound was healed in five weeks, but the patient continued to vomit after every meal. He was at last reduced to the necessity of eating in bed, with his legs drawn up to the abdomen, so as to relax the omentum, and prevent its dragging influence on the stomach.

"M. de la Faye opened the body of a woman in 1740, who had been operated upon for hernia several years before. From this time functional derangement of the stomach took place, and she ceased to enjoy good health. The omentum was adhering to the inguinal ring, and the stomach, which was dragged almost perpendicularly, had lost its natural shape, and assumed the form of one of the large intestines.

"Vesalius relates, in his work on anatomy, an instance of great and unnatural displacement of the stomach, from an irreducible epiplocele of from four to five pounds weight; and Dr. Robert Lewis, Physician, in Edinburgh, met with a case somewhat similar in the year 1722. The patient was sixty-three years of age, and had been subject, from his youth, to an irreducible epiplocele, which gave rise to a variety of urgent symptoms. On dissection, the greater part of the omentum was found in the left side of the scrotum, and attached to the testicle; the stomach was attenuated, inflated, and greatly displaced; the pylorus lay obliquely downwards, as far as the right side of the umbilicus, and the œsophagus entered the stomach at an acute angle.

"The necessity of returning the omentum into the abdomen whenever it is practicable, that it may regain that position in which its attachments to the stomach and colon would naturally place it, is, I think, sufficiently obvious:

I must, therefore, dissent from those authors who maintain, that the permanent adhesion of the omentum to a hernial sac is productive of little inconvenience, and that, at first, although the stomach and colon may have their functions interrupted, these parts soon become accustomed to this restraint, and cease to feel its influence. It happens, on the contrary, in many instances, that the symptoms, instead of yielding, become daily more distressing, and continue to harass the patient with increasing severity during the remainder of life.

"Besides, we sometimes find, that the disorganization to which the irreducible omentum is liable, is not confined to the tumor, but extends into the abdomen. The abdominal portion of this membrane is, from this cause, as well as from the stretching, pressure, and irritation, to which it is subjected, apt to become extensively and incurably diseased. I have seen one case, and a preparation of the diseased parts of another, in which the omentum within the abdomen, as well as the portions contained in the irreducible ruptures, had lost every vestige of its natural structure, become exceedingly bulky, indurated, and tuberoso, and produced death by exciting ascites."

Some Considerations with respect to the Blood, founded on one or two very simple Experiments on that Fluid.
By BENJAMIN G. BABINGTON, M.D.
F.R.S.

There is something rather forbidding in the title of this paper, with which the matter is not much calculated to do away. The chief object of these "Considerations" is to shew that there exists in the blood a homogeneous fluid, to which it is proposed to apply the name of liquor sanguinis; that this, after a time, separates into two parts, viz. fibrine and serum, and that these do not exist as such in circulating blood, but that they separate when, and not until, the liquor sanguinis ceases to be under the influence of life—the liquor sanguinis bearing a striking resemblance to chyle.

"EXPERIMENT I.—Let blood be drawn in a full stream from the vein of a person labouring under acute rheumatism into a glass vessel, which should be filled to the brim. By close inspection a colourless fluid will be immediately

perceived around the edge of the surface, and after a rest of four or five minutes, a bluish appearance will be observed forming an upper layer on the blood, which is owing to the subsidence of the red particles to a certain distance below the surface, and the consequent existence of a clear liquor between the plane of the red particles and the eye. Let now a spoon, previously moistened with water, be carefully immersed into the upper layer of liquid by a gentle depression of one border. The liquid may thus be collected quite free from red particles, and will be found to be an opalescent and somewhat viscid solution, perfectly homogeneous in appearance. By repeating the immersion we may collect this fluid in quantity, and transfer it to another vessel. That which I employed is a bottle holding about 180 grains, of globular form, with a narrow neck and perforated glass stopper."

"**EXPERIMENT II.**—Take two similar tall glass jars or phials, each capable of holding about four or five ounces, and let one of them be half-filled with olive oil; draw the blood of a healthy subject into each. That which flows through the oil will be found to have a layer of liquor sanguinis on its surface, which will form a buffed crust, while there will be none upon that which is received in equal quantity, and in other respects under the same circumstances, into the empty jar. This experiment will not always succeed, for blood sometimes coagulates so quickly, even though it pass through oil, that no buffed crust is formed. It is enough, however, for my purpose, that there is frequently a very evident difference. If this experiment be performed on blood disposed to exhibit a buffy crust, that which is formed under the oil will be twice or thrice as thick as that formed in the empty jar. The reason that blood is buffed when drawn into oil we need not now consider. It is, indeed, sufficiently evident."

Observations on the Symptoms attending the Change of a Circumscribed Popliteal Aneurism into the Diffused State; with some Particulars of an Aneurism of the Aorta that burst into the Oesophagus. By SAMUEL COOPER, Surgeon to the King's Bench, the Bloomsbury Dispensary, the Fleet Prison, and his Majesty's Forces.

Mr. Cooper observes, that the pulsa-

tion of aneurismal tumors sometimes undergo sudden diminution, or even cease altogether, without any of those changes resulting which lead to spontaneous cure. The object of the paper before us is to illustrate this point, and shew that, on the contrary, such phenomenon may be owing to causes which are productive of a great increase of danger. The circumstance alluded to is rupture of the aneurismal sac, the integuments remaining entire. The change of aneurism, from the circumscribed to the diffused state, has been described by most writers on surgery, but Mr. Cooper thinks there are certain circumstances connected with it which require more attention than has been bestowed upon them.

In such cases, several causes tend to render the pulsations weaker and weaker, till they are at length extinguished. Thus,

"1st. The more or less impeded state of the circulation, that takes place in the limb, as soon as a considerable quantity of blood has been injected into the cellular tissue. And, in order that the extravasation may attain the degree necessary for the full production of this effect, a certain time is obviously requisite; the limited size of the opening in the sac, and perhaps also sometimes the particular situation of it, away from the main current of blood, preventing the effusion from becoming all at once copious and extensive. By degrees, however, the quantity of blood in the cellular membrane increases; and then its pressure not only creates a great deal of irritation, but actually interferes with the regular supply of blood and nervous influence to the limb. Hence, the alarming fall of temperature in the foot, and the well-known tendency to gangrene, consequent to the change of a circumscribed popliteal aneurism into a diffused one.

"2dly. Another cause, that has a powerful effect in gradually putting an end to the pulsations, is the increase in the quantity of coagulated blood and fibrine in the sac; the inevitable result of the stream of blood through it becoming more and more retarded, in proportion as the obstruction of the circulation in the leg is augmented.

"I have been led into these reflections by the observation of a popliteal aneurism, the history of which is in several respects highly interesting to the practical surgeon.

"In the beginning of last April I was desired by Mr. Nicholson, of Coburg Place, in the Borough Road, to visit Mr. Lucas, an organ-builder, in the Waterloo Road, a large robust man, of gouty habit, about 48 years of age. I found him confined to bed, with an extensive and prominent swelling at the back of the left knee. The tumor not only filled the ham, but extended over the sides of the condyles of the thigh-bone towards the kneecap, and reached some way under the gastrocnemius muscle. Its pulsations were remarkably strong, and equally manifest both to the sight and the touch. The integuments, on the back part of it, were at one point somewhat red and inflamed; the foot torpid; and the limb, from the knee downwards, of great size, from the effect of œdema. It is curious that the disease should have existed five years, without the patient having any suspicion that his lameness arose from something more serious than a gouty, or rheumatic affection of his knee; and, notwithstanding the present magnitude of the swelling, he had continued to follow his trade, with scarcely any interruption, until the day when I first visited him.

"As the disease appeared urgent, I advised Mr. Lucas to let me tie the femoral artery, and explained to him the hazard of delay. His answer was, that he should be prepared for what had been recommended in a week or ten days, at the expiration of which he should have completed some pressing engagements in business.

"Three or four days after my first visit, I learned from Mr. Nicholson, that the patient, instead of having been able to get up and attend to the engagements in question, had been severely attacked by gout in the right foot and both wrists. This additional complaint lasted about a fortnight, and, on its subsidence, it was remarked, that *the throbbing of the aneurismal tumor had undergone a considerable diminution, without any material alteration in the general appearance of the swelling and limb, except that a slight purple discoloration was perceptible a little above the internal malleolus.* The numbness of the foot was also somewhat increased.

"Five days after the period, when the pulsations of the tumor had been observed to have declined, I visited the

patient again, and found the above-mentioned discoloration very manifest, though not of much extent, and somewhat resembling an ecchymosis; *the foot had become all on a sudden extremely cold*; there was some sensibility about the ankle and instep, but none in the toes; and no throbbing whatever could be perceived in the swelling. In other respects the limb remained without alteration.

"It was now a question in what way, and from what cause, the total stoppage of the pulsations had arisen? From the time that I first heard of the reduction of their force, I hoped that this circumstance might be connected with changes, which had lessened the transmission of blood into the aneurismal sac, and I was still inclined to believe, that the complete stoppage of the throbbings depended upon such transmission, having been effectually cut off. As there had been *no change in the shape of the tumor, no diminution of its firmness, and no material increase in the swelling of the leg*, I entertained no suspicion of a rupture of the sac. However, the sudden fall in the temperature of the foot, the increased frequency of the pulse, and the risk of gangrene, raised doubts in my mind, whether the view which I had taken might not be erroneous. I requested, therefore, that a consultation might be held with Mr. Lawrence the same afternoon (Friday), and directed the leg and foot to be in the meanwhile fomented.

"We met at half-past six o'clock in the evening. Mr. Lawrence, having applied his ear close to the swelling, said that he could distinguish a sound in it like that produced by the action of a pair of bellows; that this sound could proceed from no other cause than the entrance of blood into the aneurismal sac; and that, on this ground, he was in favour of tying the femoral artery. The same sound was also heard by myself and two other medical gentlemen present. No doubt therefore now existed concerning the passage of a certain current of blood yet into the aneurism. At the same time, *the foot and lower part of the leg were remarked to be warm*, whereas they had been extremely cold in the morning. Although blood still entered the sac, I conceived that it might only be doing so in a very diminished quantity, and that possibly changes might be going on which would

soon completely stop the influx of blood into the aneurismal cavity. Indeed, as no suspicion arose of a rupture of the sac, it seemed to me impossible to account for the cessation of pulsations on any other principle. At my suggestion, therefore, the operation was put off.

"As there was no improvement in the state of the limb on the following day (Saturday), Mr. Lawrence very properly urged the operation; but the patient could not be prevailed upon to submit to it.

"On Sunday morning, at ten o'clock, directly after my return from a professional engagement, which had taken me into the country on Saturday, I visited Mr. Lucas again, and finding that the risk of gangrene had not been lessened; that the tumor continued as tense and large as ever; that the swelling of the whole leg was undiminished; that the bellows sound was yet audible; that the apparent return of the natural heat in the foot and leg, noticed on Friday evening, had been owing to the assiduous use of hot fomentations; and that *the frequency of the pulse was increasing*; I persuaded the patient to let me tie the femoral artery, which I immediately did with the assistance of Mr. Nicholson and my nephew, Mr. George Cooper. The vessel was secured with a single ligature of strong fishing-line silk, introduced under it with an aneurism needle, without any raising of it up with the finger, or any unnecessary detachment of it from its surrounding connexions.

"As soon as the ligature had been tightened, the bellows-like sound in the swelling entirely ceased. The wound was dressed in the common manner. Without going into superfluous details, suffice it to mention, that the tying of the artery did not prevent gangrene, which shewed itself in a very unequivocal form on the fifth day after the operation, when it became absolutely necessary to amputate above the knee. The pulse was then 130, the restlessness and anxiety rapidly increasing, and the skin of a considerable portion of the leg black, or livid. The bone was sawn through about an inch and an half below the ligature on the femoral artery, which was observed not to bleed. The day after the amputation, the pulse had fallen to 110, and every thing went on so favourably afterwards, that, in the

course of six weeks, the patient's recovery was complete.

"The amputated limb was taken to the house of Mr. Hooper, surgeon, in the London Road, who had kindly given his assistance in the operation, and the state of the aneurism was carefully examined. The sac, which was of unusual size, was filled with coagulated blood. As a waxen composition, thrown into the popliteal artery, readily passed amongst the coagula in the sac, that vessel must have retained a free communication with the latter part. The lower and most deeply situated portion of the sac, under the gastrocnemius muscle, was found to have given way, and the inter-muscular cellular membrane was copiously injected with extravasated blood down to the very heel, some of it actually lying on each side of the tendo Achillis."

The preceding case illustrates forcibly the danger of delaying to tie the artery when the aneurism is of considerable size. The doctrine of waiting for the dilatation of the anastomosing branches, is now, fortunately, almost abandoned, experience having demonstrated that the evils resulting from the increase in the tumor far outweigh those expected to arise from increased arterial communications. The case also shews how little change is sometimes produced in the external appearance of the parts by the rupture of the sac, and it also shews the utility of auscultation in ascertaining whether blood still flows into the tumor.

The case of aneurism of the aorta, related by Mr. Cooper, is one in which the remarkable circumstance occurred, that an individual survived nearly two months after a communication had been formed between the aneurismal sac and the œsophagus, following in this interval the laborious trade of a wheelwright.

Case of Axillary Aneurism, successfully treated. By T. CROSSING, Esq. Surgeon, Devonport. Communicated by BENJAMIN TRAVERS, Esq. F.R.S.

Case of Axillary Aneurism, successfully treated by Tying the Subclavian Artery. By CHARLES MAYO, Esq. Surgeon to the County Hospital in Winchester. Presented by Mr. STANLEY.

These cases are important, as adding two to the very limited number of in-

stances in which ligature of the subclavian artery has proved successful. In Mr. Crossing's case, the ligature remained an unusually long period, not coming away till the eighty-fifth day. On another point he observes,

"In conclusion, I would recur to what I have stated, in describing the operation, respecting the existence of a gland immediately over that part of the artery which was tied. This, I have reason to believe, is scarcely a deviation from ordinary structure, as in not less than a dozen subjects, whom I have examined, the same substance was found precisely in the same situation. I would therefore beg leave to ask whether, in most cases, this gland may not prove to us a better guide than the scalenus muscle; because from its being seated immediately over that portion of the artery which is usually tied, we are thus at once directed to the vessel, and enabled to separate it from its contiguous cellular tissue to less extent than by any other mode. At all events, should the gland be occasionally found wanting, the muscle will still remain as useful to us as ever."

Mr. Mayo, in reference to his case, remarks,

"I am happy to add one to the few instances confirming the propriety and success of this operation; and there can be no doubt that its failure has, in most instances, been owing to the advanced stage of the disease, when the operation was undertaken; the proximity of large branches to the point where the ligature is applied, as stated in my former case, may also be a cause of failure, which also must be increased by delay, as we may conclude that they will acquire a greater magnitude from the obstruction of the aneurism beyond. It strikes me that this objection may be somewhat avoided by applying the ligature upon that part of the artery which lies upon the rib, and as far as possible from the scaleni; for which reason I can see no necessity for exposing the edges of those muscles, as some inculcate; neither can I see the necessity of dividing the sterno-cleido mastoideus, which Mr. Key so strongly recommends in the valuable observations attached to his successful case in the thirteenth volume of the *Medico-Chirurgical Transactions*."

Observations on the use of Tobacco as a local application in Gout, &c. By JOHN VETCH, M.D. &c.

This paper is extremely short. It is now twenty years since Dr. Vetch made extensive trials of all the known narcotics in the treatment of purulent ophthalmia. All of these failed, with the exception of tobacco, and the doctor now recommends its use "in cases of acute migratory inflammation, and especially when it attacks the joints, testicle, or sclerotic coat of the eye." The infusion of the *Pharmacopoeia* is sufficiently strong, and the only precaution required is not to apply it near the stomach, unless the production of nausea be desired.

History of a Case in which, on Examination after Death, the Pancreas was found in a state of Active Inflammation. By WILLIAM LAWRENCE, F.R.S. President of the Society.

Cases in which any connexion between symptoms during life and morbid appearances of the pancreas have been traced after death are so rare, that the following instance of this kind becomes interesting.

"I saw," says Mr. Lawrence, "in consultation with a physician and with the regular medical attendant of the family, a lady about twenty-one years of age, who had been delivered a few weeks previously of her first child. She had been very weak and excessively pale during the latter part of her pregnancy, and she became still more so after delivery. Her state and symptoms were like those of persons who have lost large quantities of blood; and her medical attendant considered that there was a defect in the process of sanguification. Under this view of the case, which was adopted by a physician who saw her soon after her confinement, cordials and stimuli, both medical and dietetic, were resorted to. No advantage resulted from this plan, and another physician was called in, who recommended calomel and opium, on the idea that inflammation had taken place in the chest, and that effusion had probably been the consequence. I saw her about thirty-six hours before death, when no hope of recovery could be entertained. She was excessively pale, with a rapid feeble pulse; hurried breathing; some

fulness and uneasiness on the right side of the abdomen.

"I learned afterwards that this lady had been most singularly troubled by thirst during her pregnancy; and that her mother, alarmed by her drinking cold fluids in large quantity, had represented to her that she feared the circumstance might prove injurious to the child. She had also suffered much from pain in the epigastric region, which was sometimes so severe as to oblige her to retire to her own apartment. In mentioning this circumstance, her mother drew her hand across the abdomen in the seat of her daughter's sufferings, and she pointed exactly to the situation of the pancreas."

Examination, thirteen hours after death.—The body had not lost its heat; the internal parts were warm to the touch.

"The skin was universally and extremely pale.

"No blood escaped on making the incisions necessary for exposing the abdomen and thorax, and for sawing round the skull.

"The membranes lining the abdomen and thorax, and the viscera contained in those cavities, excepting the pancreas and spleen, were extremely pale, and almost bloodless. The appearance was like that observed in persons who have died of hæmorrhage, or under the state described by the term anemia. The liver and kidneys were pale, and the several portions of the alimentary canal quite white, without any traces of blood in them.

"The heart was pale and rather large; its cavities and the contiguous large vessels contained some fluid of watery consistence, about the colour of red wine, and small portions of soft coagula. The coronary vessels contained no blood. The muscular substance of the heart was pale and rather flaccid; the structure of the organ in other respects was natural. The lungs were healthy, except that frothy fluid escaped on cutting into their posterior part. The cellular texture around the pancreas and duodenum, the great and small omentum, the root of the mesentery, the mesocolon and the appendices epiploicæ of the arch of the colon, were loaded with serous effusion. The fluid, which was transparent, bright yellow, and of watery consistence, ran out in large quantity on cutting into the parts

above mentioned, which were distended in some places to the thickness of two or three inches.

"The pancreas was throughout of a deep and dull red colour, which contrasted very remarkably with the bloodless condition of other parts. It was firm to the feel externally; and when an incision was made into it, the divided lobules felt particularly firm and crisp; the texture was otherwise healthy. The part was left wrapped up in a cloth for nearly forty-eight hours after its removal from the body, the weather being then very cold. At the end of this time the hardness was gone, and the gland even appeared rather soft.

"The spleen was rather large and turgid, livid externally, brownish red internally, and somewhat soft in texture.

"The surface of the dura mater, covering the cerebral hemispheres, was lined in the neighbourhood of the falx with a very thin, soft, and almost mucilaginous layer of light red tint; it could be scraped off with the handle of the knife, leaving the membrane of its natural appearance. There was slight serous infiltration of the pia mater. The blood-vessels of the brain were moderately full. The distention of the cellular membrane by serous effusion in this instance was analogous to the oedematous swelling which often occurs round other parts when actively inflamed.

"The pancreas is not unfrequently found after death, as it was in this case, preternaturally hard; and I suppose that the gland has been in this state in the numerous instances in which we hear and read of its having been schirrhous. Although I do not know on what this hardness depends, I have never considered it as a morbid condition; because it occurs in individuals who have died of other diseases, without any symptoms referable to the pancreas; because the structure of the part is perfectly healthy in all other respects, and because the hardness soon disappears after death, as it did on this occasion."

[In some of the copies of the present article, at p. 588, for "which we have a right to infer are the last which were read," read "the best which were read;" and at p. 590, col. 2, after "with which," &c. insert "impression,"]

DR. GREGORY AND "M.D."

To the Editor of the London Medical Gazette.

SIR,

By the last number of the Gazette, I perceive that my old and indefatigable enemy, "M. D." is again the field, but, I regret to add, without having profited by the good advice which I formerly gave him. He still preserves his favourite *incognito*, not recollecting, that if his facts are true, and his arguments sound, he will have every thing to gain, and nothing to lose, by the avowal of his name. Nothing would gratify me more than to break a lance with so redoubtable an opponent, but I cannot consent to enter the lists with him, unless he withdraws his vizor, and meets me on equal terms. Until that event shall take place, (of which, however, after my former calls upon him, I have but slender hopes,) his *facts* will obtain that degree of credit which the world usually attaches to anonymous authority, and as for his arguments—they may safely be left to contradict one another.

I have the honour to be, sir,
Your very obedient humble servant,
GEORGE GREGORY.

21, Weymouth-Street,
July 20, 1831.

ACADEMY OF MEDICINE, PARIS.

Report on the subject of Cholera.

At the meeting of the 26th ultimo, M. Double presented to the Academy of Medicine an elaborate report on cholera morbus, which had been drawn up in consequence of the minister having required their opinion as to the nature and treatment of the malady. M. Double began by observing, that in order to give a good account of an epidemic, it was necessary to remove from the immediate scene of its ravages—as, on writing a history, it is essential that the narrator should not have been a party in the transactions recorded; a position, however, which leads to the inquiry whether Tacitus did not live amid the scenes he describes, or whether Hippocrates and Sydenham described epidemics on hearsay. The reporter pro-

ceeded to enumerate the symptoms and postmortem appearances, but as, on a careful perusal of these, we find nothing to add to our Epitome, (Gazette, No. 186) we shall not trouble our readers with it. It is inferred, that the cholera of the ancients, especially as described by Aretæus—that of India and Europe—are but one identical disease, slightly, and but slightly, modified under different circumstances. In conclusion of this part of the report, we are told that "cholera is a complex, variable, and capricious affection, characterized by a general diminution of nervous function, combined with a particular *catarrhal* state;" while we are informed, that though there be no uniform method of treatment applicable to every case, the general indications, nevertheless, are—1, to restore the warmth of the skin; 2, to combat the catarrhal affection; 3, to renovate the nervous energy. More of this report is promised; but from the specimen before us, we have no very sanguine expectations of its proving valuable.

EXTRACTS FROM JOURNALS, *Foreign and Domestic.*

ON THE EXISTENCE OF HYDROCYANIC ACID IN CHEESE.

DR. WITLING has undertaken a series of experiments to ascertain the nature of the changes which occur in some kinds of cheese: the results of his investigations are the following. 1st. If cheese is well sweated, sufficiently salted, and dried at a moderate temperature, it never acquires poisonous properties. 2d. Its fermentation and alteration is in direct proportion to its moisture, especially when it is kept in a close place. 3d. When exposed to the action of water, and to the sun, in a few days it gives out an ammoniacal odour. In this state, if treated with alcohol, this liquor yields on distillation some traces of hydrocyanic acid; it appears that this acid is united to the ammonia in cheese which has become changed. 4th. At a more advanced period of the fermentation, no trace of this acid is to be found. It therefore appears the deleterious property of some kinds of

cheese is owing to the formation in them of hydrocyanic acid.—*Journal de Chimie Médicale*.

**CASE IN WHICH SEVERAL LEECHES
WERE SWALLOWED.**

Dr. Schnuhr reports the case of an individual who, while in the act of bathing, accidentally swallowed several leeches. The immediate consequences were intense burning of the stomach, loss of appetite, sickness at stomach, and frequent discharges of blood by vomiting, with which one of the animals was ejected on the third day. Pale and emaciated, he applied for relief on the eighth day. The physician directed him to take a saturated solution of muriate of soda, to be followed in three-quarters of an hour by a dose of *Ol. Ricini*. This had the effect of bringing away three leeches, after which the vomiting of blood and pain of the stomach subsided.—*Hüfeland and Osann's Journ. für Pract. Heilkunde*.

**FORMULÆ FOR THE EXHIBITION OF
HYDRIDATE OF IRON.**

For a Bath.

R Hydriod. Ferri, ʒij.
Aque, q. s. M.

The quantity to be progressively increased, for adults, by half an ounce at a time.

For Lotions, Injections, &c.

R Hydriod. Ferri, ʒss.
Aque Distillat. ℥ij. M.

For Pastiles.

R Hydriod. Ferri, ʒj.
Croci Stigmat. ʒss.
Sacchari, ʒviij.
Gum Tragacanth, q. s.
Fiant Pastil. 240.

Eight or ten to be taken in the course of twenty-four hours, and the dose augmented by one every three or four days. They are recommended in enlargement of the cervical glands, in chlorosis, and particularly in amenorrhœa.

For Ointment.

R Hydriod. Ferri, ʒss.
Adipis, ʒj. M.

The size of a small nut to be used night and morning, rubbed into the thighs, in amenorrhœa and in leucorrhœa.

For Tincture.

R Hydriod. Ferri, ʒij.
Alcohol
Camphoræ, aa. ʒij. M.

For Wine.

R Hydriod. Ferri, ʒss.
Vini (Bordeaux), ℥ij. M.

A table-spoonful to be taken night and morning, by adults, in scrofulous affections, &c.

MEDICAL GAZETTE.

Saturday, August 6, 1831.

“Llect omnibus, licet etiam mihi, dignitatem *Artis Medicæ* tueri, potestas modo veniendi in publicum sit, dicendi periculum non recuso.”—CICERO.

ABERNETHY-ANECDOTE-MONGERS.

THERE is a remarkable feeling on the part of the low retainers of the public press against professions and professional men generally; nothing delights a penny-a-line scribe so much as a sneer at the parson, the lawyer, or the doctor. The principal causes of this fact—itsself too palpable to require any illustration—are to be found partly in an interested desire to gratify vulgar prejudice, and partly in the ignorance of the writers themselves. We do not, however, complain of this: professional men, taking them as a body, monopolize an immense proportion of the intellect of the community; and a consciousness of inferiority will always beget in others envy enough to feed detraction. But we do complain of those who write gross slanders under the garb of friendship, and impute to us certain villainous sayings and doings, against which our only vindication is to be found in their broad denial. Look at the case of the late eminent Mr. Abernethy. Those insidious scribblers have marked him for their own—his reputation has fallen into their hands—and

every circumstance tends to shew that they have no scruples whatever about sacrificing it. Already, indeed, has the work begun; the anecdote-mongers have fallen upon him; and in a very short time he will be transformed into so perfect a Caliban—so curious a monster—that even his nearest intimates will not be able to recognize him. And all this in the way of friendship! Most assuredly the medical profession have little for which to thank the gentlemen who “do” the articles regarding them which appear occasionally in the periodicals, whether those learned personages venture upon sketches of the living or obituaries of the dead; nor can so much blame be attached to them as the persons who employ them—the persons who give them opportunity to vent their vile commodities on the public. We have been long aware that even the most trashy aspersions and foul libellings were always welcome to such a crew as the Benbows, Wakleys, and Stockdales; but we had no conception that any respectable editor would give place to the vulgar rubbish to which we shall now more particularly allude, and especially after having got ample caution, not so very long ago, respecting the kind of people that he had to deal with. In our third volume it was our lot to dissect certain tales of fancy which had just then appeared in the *New Monthly Magazine*; and our *exposé* upon that occasion having opened the eyes of the Editor (for we *know* he read our remarks) had the merit of putting a stop to those damning praises which, if continued, would have effectually injured the sale of his work. What, then, was our surprise, a day or two ago, when our attention was drawn to a new periodical, proceeding from the same editorial management, to find the same hand employed once more upon the same subject, and with the same vulgarity of sentiment and style.

Mr. Abernethy is once more his subject; and to the fame of this eminent man is the gross injustice done of bringing before the public, in connexion with his name, a set of the most filthy and stupid anecdotes that were ever penned; and this for the pretended purpose of *illustrating* the character of the deceased. Let us take a few specimens; and be it observed that we do not present them to the reader in a form more naked or abrupt than we find them in the precious farrago before us.

“In all cases of obesity and repletion Mr. Abernethy was especially impatient, and indisposed to prescribe. A portly gentleman from the country once called on him for advice, and received the following answer:—‘You *mighty* beast; you go and fill *your* g—, and then you come to me to *empty* them.’”

He then tells us a story about Mr. A.’s slitting up, with a pair of scissars, a young lady’s stays, and thus curing her of “difficulty of breathing when taking exercise.” After which, he proceeds:

“Another young lady was one summer’s morning brought to him by her mother, in consequence of the former having swallowed a spider. Mr. Abernethy dextrously caught a blue-bottle fly as it *fled* (*flew*, we suppose, he means) by him, and told the patient to put it into her mouth, and if she spit it out in a few moments the spider would come out with it.”

This most of our readers will recognize as a regular Joe Miller, and, no doubt, will appreciate the writer’s talent for spoiling it so egregiously in the telling.

We have also here the story of Mr. Abernethy’s having said, at his own table (where it seems the writer would give us to understand *he* was), that he (Mr. A.) thought that Eton was the best public school for boys, “because it tended to *polish the manners* more than any other; perhaps;” upon which Mrs. Abernethy observed, “*it was a pity*

he had not been educated there himself!" This *not* we recollect having met with before, in the article which we castigated in the *New Monthly*; but, for the life of us, up to this day we have not been able to discover any peculiar point in it, or why it was thought worthy of a second edition.

Come we now to Crispin in another shape. After furbishing up all the anecdotes that he could beg, borrow, or steal, in the didactic form, he suddenly becomes epistolary, and breaks out thus abruptly to the Editor:—

"He's gone!—my friend, your friend, —nay more, the friend of the human race! If, sir, I did not positively blubber, like Corporal Trim over the dead body of Sterne's *Le Fevre*, it is not too much for me to assert that the silent tear trickled down my rough-spun, iron cheek, when I heard that the '*Great Creature*' in the medical world (Mr. Abernethy) 'had gone to that bourne from whence no traveller returns.' [How pathetic this is, and how poetically correct!]

"His departure was rather sudden—the doctor was not exactly prepared to resist the severe attack made upon him by the ugly, ill-natured opponent of mankind; and *his specific*, so extremely successful in numerous other instances, in his own case proved vain:—*the doctor's grand antidote*, universally sought after by all ranks of society to prevent the loss of life, wanted its accustomed efficacy when applied to himself."

This is certainly what may be called plunging in *medias res*—*haud secus ac notas*. These two little paragraphs would afford materials for an ample commentary; for, besides informing us of the *very recent* death, as we understand it, of the "*Great Creature*"—or the "*Great Feature*," as he beautifully varies the epithet in the next paragraph—we are told that Mr. Abernethy's departure was *rather sudden*, and that *his specific* and *grand antidote* failed him in the end—as, we suppose, his *elixir vite*

did Paracelsus, who died, as Dr. Paris informs us, "with a bottle of his immortal catholicon in his pocket." Now there is much news in all this to us; for the very reverse of some, if not of all, the facts here stated, was consistent with our knowledge.

But to proceed,—there are a few more points before us not undeserving of our attention. We have here a *negative* description of the late Mr. Abernethy, of which, we confess, we do not exactly see the force—some of our readers, however, may, and for their benefit we extract it:—

"He was not the 'sugar and water' physician, who would smile in your face—laugh at your credulity—and pick your pocket by 'friendly' prescriptions, calculated neither to produce mischief nor good. Neither did the *late doctor* wish to impose on the minds of his patients by the flourish of a *diamond ring*—the display of *laced ruffles*—the *dress coat* the *pompous gait*—the *significant nod*; in fact, he did not *dress for the character* at all."

He was right; we think Mr. Abernethy was perfectly right in not "*dressing for the character*:" had he done so, he certainly would have dressed as no man of the present day dresses—and for a character with which we confess we are, for our parts, totally unacquainted. Does the ridiculous author of the "*anecdotes*" mean to insinuate, that there is in society, at the present day, a single physician who cuts, or dare cut, those antics which are here alluded to? Such things, no doubt, have been heard of, and perhaps witnessed, in the olden time—in generations by gone; but we beg to inform our anecdote-monger—for we know it will be news to him—that well-bred physicians of the present day are dressed as gentlemen should be—plainly, and without any peculiarity that would attract the notice even of the curious; and that the faculty generally are far more free from any

thing like mannerism, than the members of either of the other two learned professions.

We shall not waste more words upon this ignorant scribbler, farther than to mention that he winds up his trashy yarn with three tales, than which we never remember to have met with any thing more miserably pointless. The story of the fox-hunter and Abernethy is told in some dog-language befitting the kennel or "the ring"—it is certainly not English; and the butcher anecdote is the most unintelligible piece of slang jargon that we have seen even in the most vulgar police report. As for the passage between Abernethy and the player, it were utterly unworthy of notice, by reason of its stupid improbability, did it not contain a shameful reflection on the character of the deceased. In answer to his patient's question—"I believe you call this the rheumatism, doctor—what is good for it?" he is made to reply—"I *don't* know; neither do I think the wise ones, whom they term the faculty, are any *better judges* of it! I have been laid up with the rheumatism for the last three weeks, and could not wait upon my patients, and I assure you I was *totally at a loss for a remedy!*" Well may a sign of wonder be affixed to this last expression, supposed to be uttered by the lips of Abernethy. We are utterly confounded at the presumption of the writer of such mendacious absurdity. Can the Editor of the Magazine in question, we ask, be aware of the unjust and libellous trash to which he has given insertion?

PROGRESS OF CHOLERA.

THE accounts from various parts of the Continent, but particularly from Russia, regarding the progress of cholera, are of the most painfully interesting

description. Many persons fled from St. Petersburg to Cronstadt on the first alarm—but they left not the disease behind them; indeed it is remarkable that an immense proportion, both of the fugitives and of those with whom they took refuge, is ascertained to have perished. At Cronstadt there occurred, within three days, above three hundred cases, and only seven cures; nearly half having died in the first twenty-four hours, and the rest remaining ill; no British subject had suffered from the disease when the last accounts were dispatched from this place.

At St. Petersburg the evil of this dreadful visitation has been fearfully aggravated by the state of the public mind, by which society was for a time disorganized. The lower class of the people became impressed with an idea that the "foreign doctors" were employed to poison them; nor did this impression originate solely in the great mortality, but was, perhaps, still more the result of some persons, strangers in the place, having been found with large quantities of active poisons in their possession, of which they could give no satisfactory account. Two of these men were sacrificed to public vengeance. The fury of the mob was particularly directed against the medical men; one of whom was murdered; two nearly beaten to death; a fourth has destroyed himself; and when we add that not fewer than fifteen physicians, attached to public hospitals, have had the cholera, of whom six have died, it will be acknowledged that our professional brethren have had their full share in the public calamity. The medical man who committed suicide was a Jew, entrusted with the examination of those coming to the town by water; and the *on dit* is, that he suffered infected barges to pass, for a "consideration." These accounts represent the Emperor in

more favourable light than we have been lately accustomed to contemplate him. The manner in which, after the entire discomfiture of the police, he threw himself between the rabble and the objects of their fury—braving at once the excited passions of the people, and the immediate proximity of those affected with the malady, appealing to their reason, and controlling their desperation—is said to have been in the highest degree imposing, and forcibly to have shewn his moral influence over his subjects. Our medical commissioners were at first assisted in their pursuits—more lately they have been requested by the authorities to abstain, for the present, from any investigations calculated to interfere with public prejudices. No postmortem examinations are carried on except clandestinely; and, in fact, physicians from foreign countries are obliged, by a respect to their personal safety, to be very guarded in their proceedings.

Of the different methods of treatment, that by sub-nitrate of bismuth is regarded at St. Petersburg as most successful—if, indeed, success can be spoken of where so few recover; and the Emperor has gone so far as to issue a proclamation, commanding the use of this medicine in preference to others—an edict which, if it appear to us rather arbitrary, will at least have the advantage of deciding the question as to the real power of this remedy over the disease. There is reason to believe from these accounts, that ill-timed blood-letting, and over-doses of powerful medicines, have added to the frightful mortality which has prevailed in the northern capital of Russia. During the prevalence of the disease at St. Petersburg, the wind has been easterly, and the thermometer about 21° , *i. e.* 79° of Fahrenheit.

Our accounts from Dantzic are up to the 22d of July: the disease, which had

considerably abated, was again on the increase—a circumstance which was simultaneous with the setting in of close, damp, hot weather. Of 808, the total number of cases reported, 584 had died; 157 recovered, and 66 remained under treatment. The disease was spreading into the neighbouring districts—the opinion on the spot being that the *cordons* were quite unavailing. The malady appeared at Königsberg and Memel about the 25th and 27th of July. By recent accounts from Stockholm, it is stated that no case had occurred either there or at any other part of the Swedish dominions; Norway enjoying a similar immunity. There are, however, not fewer than two hundred vessels, chiefly Dutch, driving about in the Baltic with the disease on board.

It is satisfactory to us to be able to state—and our sources of information are good—that although a few persons of the better classes have been attacked, as yet they have been but very few, and constitute exceptions to the general rule. By the “better classes,” we mean those who have the means and inclination to use wholesome generous diet, without any approach to intemperance. The death of Marshal Diebitsch, and the Grand Duke Constantine, have been supposed to justify a different conclusion; but keeping in view what we have just said, it is not quite apparent to what class of society these personages ought properly to be referred.

CHOLERA NOT AT PORT GLASGOW.

LETTERS have been received from Dr. Daun fully confirming our statements of last week. The cholera, which has prevailed there, is nothing more than the disease with which we are familiar in this country. Its severity, and the number in whom it proved fatal, have

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been much exaggerated—in fact, it does not appear that more than one had actually died of the complaint. We subjoin an extract of a letter from a physician on the spot:—

Port Glasgow, July 27, 1831.

I am happy in being able to state, for your information, that, after due investigation, there appear no grounds for any alarm on the present occasion.

There have been a considerable number of cases of the cholera, such as generally takes place at this season, but only in the ordinary form.

It is a remark made by some of my medical friends in Glasgow, that cholera generally comes in with the new potatoes and fresh herrings; and I have little doubt that these favourite articles of food, taken in too great quantity, would be quite adequate, in many instances, to produce the disease.

I have no hesitation in saying that ——— came to his conclusions too rapidly, and on no adequate data.

EFFECT OF THE PRESENT EPIDEMIC ON LIFE INSURANCE.

ABOUT a fortnight ago, we saw it stated in one of the weekly papers that there had been a “run” upon the Life Insurance Companies, in consequence of the idea that cholera might possibly reach this country. We find upon inquiry, however, that just the reverse of this is the fact, and that much less than the average quantity of business has been done during the last few weeks. It is remarkable, too, that this has not occurred partially, nor with regard to one or two establishments, but has been so general as to have attracted the notice and excited the inquiries of some of the parties. It is evidently the result of some cause in extensive operation, and the idea entertained is, that the public apprehend that if the disease were to break out here, the Insurance Companies would be ruined, so that taking out a policy would be but throwing money away.

CAJEPUT OIL IN CHOLERA.

To the Editor of the London Medical Gazette.

London, July 26, 1831.

SIR,

ENCLOSED is a copy of a document which has reached me through a source so respectable that I consider it a duty in the present state of the public mind on the subject of cholera, to transmit for insertion in your valuable Journal such evidence of the utility of a particular medicine in that disease as seems to entitle it to a farther trial.

I may add, that on the morning of the 15th inst. having been myself attacked, pretty smartly, with symptoms of cholera, such as are not uncommon in England about this time of the year, I was induced to take, in the incipient stage, twelve drops of the medicine referred to in a little warm water, and this draught was certainly followed by the immediate subsidence of the symptoms, and I have since continued perfectly well.

M.D.

[The document alluded to in the preceding consists of the examination of a native servant of a gentleman in India, in the course of which he states that he has seen many cases of cholera: that the common remedies almost always failed to give relief, while the cajeput oil almost always succeeded.

It is stated in the newspapers, that Sir M. Tierney has been in communication with the Russian and Prussian ambassadors on the subject, and that a quantity of the oil has been sent to St. Petersburg: if so, the question of its efficacy will speedily be answered.—E. G.]

REPORTS OF CASES OCCURRING AT PUBLIC INSTITUTIONS.

LONDON HOSPITAL.

CASE I.—*Paralysis of the upper and lower Extremities, connected with a diseased Vertebra—Recovery.*

FANNY SAYER, ætat. 8, was admitted into the London Hospital, under the care of Dr. Billing, on the 24th December, with paralysis of the upper and lower extre-

mities. It is stated by her parents that she became paralysed about two years ago, after an attack of typhus fever, and that a swelling appeared on the left side of the neck.

A short time after a hard tumor appeared on the back of the neck, and the child lost the power of rotating the head, which fell forwards; and to prevent the chin from resting on the upper part of the sternum, it was found necessary to make her wear a collar. At present the swelling of the glands on the side of the neck is soft; the tumor on the back is formed by a projection of the second cervical vertebra; the head is immovable, and inclined to the left side, and the chin almost touches the upper part of the sternum. There is paralysis of the upper and lower extremities, without the loss of sensation; the contents of the bladder and rectum pass involuntarily; the intellectual faculties are unimpaired, and the general health is very good. She has been for some time under the care of a medical man, but without deriving any benefit.

Hirudines xij. tumori.
Mist. Cath. Ant. ter die.

Jan. 2d.—Pressure on the projecting vertebra produces much pain. Continues the same as on admission; sleeps well; appetite good; bowels open.

Rep. Hirudinea.

12th.—Is still in bed; unable to move her limbs; urine and feces pass involuntarily; general health very good.

Hirud. iv. alt. diebus.

21st.—Can now control the contents of the bowels and urinary bladder; has in some degree recovered the use of the lower extremities within the last two days; the upper extremities still continue paralysed. There is now a small opening near the tumor, from which a thin purulent matter is discharged.

29th.—Can now move the upper extremities; there is more power in the left arm than in the right.

Feb. 6th.—She has to-day, with the assistance of the nurse, walked across the ward; the limbs are daily becoming stronger; her general health continues very good.

The child remained in the hospital till the month of June, when she was discharged cured. She had entirely regained the use both of the upper and lower extremities; and the small sinus had filled up and healed. The head remains firmly fixed, and inclined forwards. The cure may be attributed to perfect rest in the horizontal position, and the continued application of leeches around the tumor as long as any pain was produced by gentle pressure on the projecting vertebra. The general health being always good, medicine was only administered for the purpose of keeping the bowels open.

CASE II. — Hard Swelling of the Abdomen—Melæna—Death.

Joshua Webb, ætat. 10, of a delicate form, was admitted into the London Hospital on the 30th of December, with a swelling of the abdomen, without any evident sign of fluctuation. The abdomen, when pressed, is tender; the skin feels hot; he has much thirst; no appetite; and bowels are in general confined. The swelling commenced about two months ago, without any evident cause, since which time he has become gradually worse. The plan of treatment generally followed during the time he remained in the hospital was a steady course of purgatives, with the repeated application of leeches to the abdomen, which afforded much relief; and he also took soda in the decoction of bark frequently during the day.

On the 13th March he left the hospital of his own accord. About three weeks after he was attacked with melæna, which continued for four days, at the end of which time he expired.

Post-mortem Examination: Abdomen.—The peritoneal surface of the bowels was every where adherent to the parietes of the abdomen, and was completely studded with tubercles in the crude state. The peritoneum covering the liver and spleen was also covered with tubercles. In the bowels was found a large quantity of coagulated blood.

Thorax.—The pleura was thickly studded with small tubercles; the lungs contained only a few—in other respects they were healthy. The heart and pericardium were healthy. Head not examined.

CASE III. — Large Tumor in the Abdomen—Paracentesis—Death.

Elizabeth Benson, ætat. 44, a widow, of a sickly appearance, was admitted into the London Hospital on the 26th February with a great distention of the abdomen, which to the touch is hard and tense. She reports that she was a patient in the hospital about two years ago, with a large swelling of the knee, for which amputation of the limb was performed.

The swelling of the abdomen appeared for the first time about nine months ago, and has gradually increased to its present size: it was preceded by pain in the right hypogastric region; percussion indicates a slight fluctuation. There is also a hard circumscribed tumor near the spine of the left scapula, which appeared about eleven months before her admission. Tongue clean; bowels open.

Tinct. Digitalis, gtt. xx.
Spirit. Æth. Nit. 3ss. ex
Infus. Quassie Cath. ter die.

Pulv. Jalapæ c. Cal. ʒj. aa.

29th.—Continues much the same.

Contin. medicamenta.

Paracentesis abdominis.

3d March.—The paracentesis abdominis was performed this forenoon. About two ounces of blood, mixed with a little viscid fluid was all that passed off through the canula.

Contin.

4th.—Has felt no bad effects from the operation of yesterday.

5th.—The nurse reports that the patient became sick on the evening of the 4th, and expired at two o'clock this morning. She also states that, soon after the death had taken place, she observed a quantity of blood to escape from the mouth and nostrils, and, on removing the body, a considerable quantity was found in the bed.

Sectio Cadaveris.—The body was examined thirty hours after death, when decomposition had already taken place.

Thorax.—No morbid appearance in the chest or its contents, a few old adhesions excepted.

Abdomen.—On opening the abdomen, the lower part was found to be occupied by a large tumor, which had displaced the mass of the intestines, and had formed adhesions with the omentum. The tumor on being cut into was found to contain a number of cysts, some being filled with medullary sarcoma, and others with a thick viscid fluid: the total contents of the tumor might be computed at two gallons. The left ovary and the uterus were perfectly healthy.

The large tumor on the back was composed entirely of medullary sarcoma.

The head and spine were not examined.

CASE IV.—Intermittent Fever—Cure.

Thomas Drudge, *æt.* 40, alabourer, of a tall, spare, but strong frame, with a pale sallow countenance, was admitted into the London Hospital on the 13th February. He reports, that about nine years ago he was a patient at St. Thomas's, with rheumatism, and was afterwards in the same hospital for about five weeks with intermittent fever, which was checked by the use of bark.

About three months ago he was attacked with a slight cough, which was soon followed by his present illness: and during these few last months he has lost strength, and become much emaciated. He has now one attack of ague every twenty-four hours; it comes on about one or two o'clock in the morning, the cold stage lasting about an hour, and the two succeeding ones about three hours, leaving him in a very debilitated state. He complains of great weakness, of loss of appetite, of nausea and vomiting, his stomach refusing every description of food. There is a slight tenderness of the left hypo-

chondrium on pressure, but no enlargement: the viscera can be discovered by the most careful examination. Pulse 110; tongue white; skin dry; bowels open; urine true but high coloured.

Hirudines *xx.* hypoc. sinistro, *c. fota.*

Pil. Hydrarg. Submur. *c. gr. v. o. a.*

Ol. Ricini, *om. mane.*

Low diet and beef-tea.

14th.—The leeches bled freely, and the tenderness of the left hypochondrium is entirely removed. He slept well, and is much better. Had a paroxysm between one and two o'clock this morning, which lasted about four hours; he says that it was not so severe as the former attacks. Pulse 106; tongue clean; no appetite; has taken a little beef-tea, which was not rejected by the stomach.

Cont. Medicamenta.

Hirudines *x.* epigastr. altern. diebus.

16th.—Feels in every respect better.

Cont. Med.

Bal. tepidum advenit paroxysmi.

22d.—Was put into the warm bath last night (for the first time) on the approach of the paroxysm, and which was checked during the quarter of an hour that he remained in the bath: it, however, returned on his being put to bed, but he says not with the same severity as formerly. Slept well, and feels better this morning; cough easier; pulse 108; tongue clean; appetite good, and can now retain all his food; bowels open.

Perstat.

24th.—The paroxysm came on yesterday evening about half-past six; was not put into the bath, as ordered. Appetite good; pulse 66, and regular; tongue clean; bowels open.

Quinae Sulphatis, *gr. v. ter die.*
et Contin. Pil.

March 3d.—No return of ague since the 25th ult.; his general health continues to improve.

Cont. Quinae Sulphatis
Omitt. Pil.

6th.—No return of ague; appetite good; tongue clean; pulse 72, full and soft; bowels open.

Cont. Quinae Sulphatis.

9th.—Complains now only of weakness across the loins.

Emp. Roboran. lumbis.
Omitt. Quinae Sulphatis.
Middle diet.

16th.—His health continues improving.

20th.—Is gaining flesh and strength, and makes no complaint.

Full diet.

26th.—Is now quite well, and goes out in a few days.

NORTHAMPTON INFIRMARY.

Poisoning with Stramonium—Recovery.

To the Editor of the London Medical Gazette.

SIR,
The following case is considered sufficiently interesting, I beg you will insert it in your valuable publication, and you will oblige, sir,

Your obedient servant,

JAMES MASH,

House Surgeon,
General Infirmary, Northampton.

On Wednesday morning, July 6th, a person applied for assistance at the Infirmary for a woman who had taken by mistake two teacupful of the infusion of stramonium for the infusion of senna.

CASE.—Hannah Gibbs, æt. 36, of delicate habit, swallowed, by mistake, two teacupful of the infusion of stramonium for senna tea. About ten minutes afterwards she was seized with giddiness of the head, dimness of sight, and fainting. Her neighbours, hearing a noise in her bed-room, came to her assistance, and went to a Druggist, who sent a powerful emetic, which, however, did not produce vomiting. Two hours afterwards I saw her, and found her quite insensible; pupils dilated, and not acting to the stimulus of light; the whole muscles of the body convulsed; countenance flushed; pulse full, and rather slow. With the assistance of the Infirmary pupils, I washed out the stomach several times with large quantities of tepid water, by means of the stomach-pump, and with such good effect that in a few hours afterwards she was able to come down stairs; and when I went to visit her at three o'clock in the afternoon, I found her taking her tea, and perfectly sensible. She states that her sight is not quite so good as before, and that her head feels rather light. I should have stated that a common enema was ordered immediately after the stomach-pump had been used, and which operated freely.

ON FAILURES IN LITHOTOMY.

[The following are the cases and observations alluded to in our notice of Mr. Fletcher's Medico-Chirurgical Notes and Illustrations. They will be found worthy of attention.]

LITHOTRITY may, by being successful in the treatment of small calculi, diminish the frequency of lithotomy, but it will never supersede this operation altogether. Its difficulties, irregularities, and failures, will, therefore, still be objects of interest, and worthy of collecting.

In performing the operation of lithotomy,

it is, perhaps, too much the fashion to consider rapidity of execution as a leading excellence; but in our attempts to acquire this captivating dexterity, there is reason to fear that mischief is sometimes done—because hurried and showy movements are scarcely compatible with the gentleness and caution which are necessary to success.

The fatality of lithotomy cases recorded in the Journals, may, in a great degree, be ascribed to these attempts at brilliant practice; of counting the number of minutes Mr. —, of great celebrity, takes to perform this operation; a dangerous guide, for, without his constant practice, none can be equally rapid, with safety to the patient!

"That operation is done quick enough, which is well done," said one of the best surgeons of our days. If rapidity be to save pain, it fails in its object, for severity of suffering, from violence of the movements, is more than a balance for a more moderate degree longer continued.

The first incisions may indeed be as quick as the surgeon may please, but when the membranous portion of the urethra is to be carefully cut, just before the prostate gland, the gland itself, and the forceps—the too often terrible forceps—used, it is humbly conceived that the operator should not be in a hurry; and this especially when he cuts with a knife a man with a fat, and a deep perineum. It is sufficiently difficult and inconvenient, in such a case, to manage with precision the movement of the knife, so that its cut shall be just what is wanted for room, and no more.

But in a hurry, and taking for granted a great deal, viz. that you have made the prostatic opening sufficiently large, without your finger, at such a distance, being exactly able to demonstrate the fact—it will at last be discovered, in attempting to extract the stone, that room is yet wanting, and then the neck of the bladder receives a fresh assault—more violence is added—the knife is resumed to touch and retouch—till room enough be obtained.

To avoid this, in such a case of a deep perineum, the superiority of the gorget is manifest, if of the requisite breadth and length for the subject. It reaches its object—makes a clean cut at once—sufficient to allow of the passage of nineteen stones out of twenty, without further violence being necessary.

If the Journals give correct reports of the mode of operating by the most eminent of the profession, the principle of non-violence is either not allowed, or if allowed, not always acted upon. Nay, further; it is scarcely defended; for one of the most experienced and successful lithotomists is quoted as a person who disregarded, as unnecessary, this principle altogether. To assist in doing away the lamentable and dan-

gerous effects of such doctrine, the subsequent cases are chiefly recorded. For surely no fact is more unquestionable, none can be more important, or better worth remembering, than that it is to a rough, worrying, and violent method, that the greater number of failures, in this operation of lithotomy, are to be ascribed. The greater the violence, the sooner is the work of death accomplished. The nervous system, in some examples, shook to its foundation, will scarcely maintain its power over the frame sufficiently long to allow the sufferer to reach his bed.

He dies at once, withered by the stroke.

In others, this first danger being overcome, inflammation is excited in the peritoneum, bladder, or cellular membrane, between it and the rectum, and they perish soon of peritonitis, or more slowly through the irritative agency of suppuration.

If hospital surgeons, who do this operation most frequently, were to report the failures they have witnessed, and the circumstances which attended them, much might be done towards abbreviating the sufferings, and preserving the lives of patients. The history of failures is, perhaps, more valuable than that of successful cases. Dissection will trace the causes of death, with the errors committed, and point out how, in future, they can be avoided, so as to lead to more precision, and certainty of a successful termination. A broken-down sufferer of many years, who has made up his mind to submit to a terrible operation, the climax of pain and punishment, relying on our skill, judgment, and humanity, for its being safely done, should be considered as a patient of the whole profession. He has placed life, his last and most precious stake, in its hands; and every member, whose experience allows him an opportunity, should not hesitate to contribute his mite to its preservation, by recounting, as warnings, the failures that he has beheld.

It will be found that their main source is violence, generally, though not always, from the forceps, on whose blade should be engraved the motto, "*Gardez bien.*" This violence is often unnecessary, for it is better to cut, than to bruise or lacerate, in the extraction of large calculi; to cut the bladder again and again, than to tear it open. On this principle was derived the great success which attended the operations of that celebrated lithotomist, Klein.

That it is the forceps which is the great agent of destruction, in the larger number of cases, is clear, from looking carefully over the sizes of the stones extracted by the late Mr. Martineau. He encountered no very desperate cases,—he was thus as fortunate as he proved skilful.

Out of eighty-four cases, the two largest stones weighed each four ounces only, and

one of these patients was lost. Why? Because the forceps had too much to do in the extraction. When the stones were small, which in his great experience was remarkably the case, the forceps had very little to do. Hence his extraordinary success, and the detection of the true source of destruction.

Mr. Martineau, therefore, could never be justly quoted as an authority for violence in lithotomy. He seldom had occasion, from the size of the stones, to employ it; but when he had, he lost his patients, like other surgeons.

There are, however, other sources of injury besides the forceps. Such as I have seen, from that and other causes, with all the failures which have occurred within my observation, shall now be faithfully narrated.

CASE I.—Fatal Abscess of the Prostate, from a lacerated Bladder by the Forceps.

A Sexagenarian from the country, tall, and very little worn in constitution by the presence of a large stone, which he had carried some years in his bladder, came under my care to have it removed. It was my maiden operation, and I was surrounded by experienced friends. From repeated examinations made in the rectum, and by sounding, it was evident that the stone was beyond a common size, and preparations were made accordingly; the muscles were fairly and freely cut, and the prostate gland divided by a full-sized gorget. The stone-breaker was at hand. It was not difficult to lay hold of such a stone; the difficulty was in bringing it through its narrow channel with safety to the patient. I made gentle efforts in the proper direction, put my finger upon it between the blades of the forceps, in the rectum, and this examination assured me that it would never pass without more force and laceration than was consistent with the patient's safety, and with my notions of the mode in which this operation should be performed. In vain was the opening into the bladder enlarged by the bistoury, and a more powerful exertion made—the stone would not pass.

I looked round for the stone-breaker; I begged that it might be handed to me. "My dear sir," with a pinch on the elbow, "try again," was the reply on one side. I did so, reluctantly; another more powerful, though unsuccessful, pull was the consequence, and again I intreated imploringly for the stone-breaker; "Nonsense, don't be afraid, I have used ten times more force than you now do," was the answer from another side, (it was true, but his patients rarely survived;) one effort more, indeed, succeeded in bringing forth the stone, which was of the mulberry kind, and weighing about five ounces and a quarter, and after the patient

had been upon the table three-quarters of an hour. The last adviser was not a little proud of so speedy a proof of the soundness of his advice; but he should have waited the result.

The shock of the operation the hardy veteran sustained; its immediate danger passed away; but he soon fell off, and ultimately sunk under irritative fever, at the end of the fifth week from the date of the operation.

The irritation was a large abscess in the cellular membrane, between the bladder and rectum, and which doubtless arose from the injury done to the prostate gland and neck of the bladder, which were in rags or fringes, bedewed with pus. The result of the foregoing case was of service, though not to the patient. I became particularly cautious of committing the slightest violence beyond what was absolutely necessary, rather cutting even the bladder, than allowing of any force in extracting the stone from it, and the effect was, that the next nineteen operations were successful ones. The stone, in this case, was too large to be removed with certain safety, though there would have been more chance of success with less violence. We may call for, as was done in the foregoing case, and then look at stone-breakers, but to use them is, perhaps, quite a different matter. Mr. Earle's is the best. The lithotrite appears to be inadmissible, from its want of power over large stones.

CASE II.—Fatal Peritonitis from a lacerated Bladder.

My second, and ultimate loss, was a young man of twenty-two years of age, and who was a good subject for the operation, that is to say, that no tendency to organic disease could be detected in him.

The following note, taken after the operation, will explain enough of the circumstances for the present purpose.

"No man should cut for the stone when he is ill; the feeling of lassitude, weakness, and want of decision, will creep into the operation. A slight oversight in the design, or defect of vigour in the execution, are quite enough to give a fatal turn to its termination. To-day I was not sufficiently alert; the gorget was overlooked; it did not cut well close to the beak, nor was it broad enough for a large adult; so that the right side of the prostate was not completely divided. The muscles too, in the deep hollow between the ischium and anus, were not sufficiently or decidedly cut; so that a straitened channel was left for the exit of the stone. Both these original errors were amended, though feebly and inefficiently; illness was at the bottom of it; the division of the right side of the prostate was completed, and the bundles of muscles touched with the knife. These subsequent corrections were not enough to prevent more violence being done

than should be permitted in this operation. It was ten minutes before the stone was extracted; and though I have seen infinitely more rough exertion employed, without harm in the result, yet do I fear for this poor fellow."

The weight of the stone was four ounces.

This patient died of peritoneal inflammation five days after the operation, in spite of the most early attention, and vigorous means employed to subdue it.

The angle of the left division of the right side of the prostate gland was torn, proving that its division by the gorget had not been quite accomplished. Some pus occupied the cellular membrane in its neighbourhood, and the small intestines were glued together by active peritoneal inflammation, which pervaded the whole cavity of the abdomen.

This man, possibly, might have been saved, had the incision of the prostate and bladder been made more free for the passage of the stone, instead of wrenching it from its bed by the forceps; although, when stones arrive at a large size, there must be some doubt about the result, should the lateral operation be performed.

CASE III.—Immediate death from extraordinary violence in the use of the Forceps.

The spectator in an operation room must always feel more than the operator himself, who is busy with his work, and, indeed, who should see nothing else but that this is well done.

A healthy, middle-aged looking man, walked into the operation room, with a cheerful, and somewhat of a bravado manner, to be cut for the stone. Without any assistance, he mounted the table, and offered his hands and feet to be tied, with the air and countenance of one entering the prize-ring, and whose mind had a full determination to win the fight or perish, though the possibility of the last was not at all in his contemplation. Scarcely would he submit to have his eyes bandaged—he appeared as if he wished to behold the whole of that process which was to restore him to health and to his family!

There are some operators—or let us rather say there were—who, with but little knowledge, can, by a talent of imitation, perform the mechanical movements of an operation with singular boldness, rapidity, and effect, provided they meet with no irregular or embarrassing circumstance to disturb this beautiful harmony. But should any unexpected and frightful event suddenly break upon the view of the hitherto brilliant man, then he becomes astounded, and is all abroad at the very moment when complete knowledge of the subject, the most perfect self-command, the entire understanding, are necessary to the poor patient's safety. It is then, too, the alarm and confusion commence;

the requisite knowledge, and consequent coolness, are not at hand; desperate force is substituted for skill, and the patient is in the most imminent danger; that is to say, in more danger from the operator himself than from the disease which he attempts to remove.

In the present instance, the operator made his first incisions clean and correct; he reached the bladder, felt the stone, and, in a twinkling, introduced an immense pair of forceps into the passage. But there was evident difficulty or obstruction in their entrance to the bladder. Some more plunges were made with them—still their room for action was evidently confined; at last they gripped the stone; but, from the wide separation of the handles, it was evident that the stone was either very large, or held in the forceps by its long axis.

"This is a very large stone, Doctor; it won't come without a great deal of force;" a great deal of force was immediately applied, (and that not in the best direction), but to no purpose,—the stone would not pass. The operator rested; the patient was calm, and complained not! The labours of the former, (his strength being recruited), now re-commenced with redoubled vigour, and an air which imported a dreadful determination to succeed. His right foot was placed, in preparation for this really awful struggle, against a chair, which was supported by a pupil; the scene became animated, though horrible. The straining and creaking of the forceps, as they occasionally lifted the suffering wretch from the table, (they twice pulled him off it)—his wild, agonizing shrieks, and entreaties for forbearance, after continuing for nearly two hours, gradually became more faint, and sunk, at last, into a piteous moan—and when the stone was shown to him it was doubtful whether he saw it, or was even conscious that a period had, at length, arrived to sufferings that never were exceeded in mortal man.

He expired in a few minutes after being carried to his bed. The body was not examined.

The operator was naturally a quick and clever man, with a great deal of tact; but he here met with a stone of more than five ounces in weight, without having previously made himself acquainted with the case by repeated examinations, which would have enabled him to plan his operation better, so as to meet the peculiar difficulties which a very large stone must create.

Upon looking at the gorget, I thought it certain that it could not, from its small size, have completely divided the left side of the prostate; moreover, it cut only on one side, so that room was lost on the right side of this gland. The operator, too, having seized the stone, appeared to be unwilling to part with it, fearing it would be difficult to find

it again; although he must have felt a stricture or binding upon it, which would require great force to overcome. He appeared to be mentally whispering to himself, "if I let it go I may not get hold of it again, and it shall come now it is in my power," and with this wrong understanding of the principles of the operation, the fatal pulling was continued.

This feeling of apprehension, of fear of losing the object of his anxiety, too often occupies the mind of the operator, especially in the case of a deep perineum, where the stone is at a great distance from the finger, and not easily felt or commanded by it. But no woman's fear can be more unreasonable, no surgeon's more ruinous—for it leads to acts of desperate violence. The road to the bladder cannot be lost after the forceps has once entered its cavity, and the stone will be as easily seized a second or a third time as it was at first,—at least, it will be seized, by steady and gentle efforts.

If any considerable sense of stricture, therefore, should be felt at the prostatic opening, when the operator attempts delivery of the stone from the bladder, he should desist from all violence, of a kind likely to bruise or tear—the stone should be relinquished, and an examination of the extent of the incision, already made, be carried into effect. These will then be enlarged, according to the circumstances, in those points where the stricture or bridging exists, or where the first incisions have been incomplete, or inadequate to the size of the stone.

After all, operators, in this difficult case of a large stone, are to be pitied,—it must either be extracted or left behind,—the want of success is more the fault of the operation (when the lateral is chosen) than in a want of skill in the surgeon.

COLCHICUM AUTUMNALE.

To the Editor of the London Medical Gazette.

SIR,
REFERRING to No. 176, and No. 190, of your journal, in the former of which I informed the profession that a series of narcotic preparations had been commenced at the laboratory, and in the latter I communicated the results of my experiments on conium, I am engaged in the pharmaceutical analysis of colchicum autumnale, which will be submitted to the attention of such members of the profession as may be induced to visit the laboratory during the process.

I am, sir,
Your obedient servant,
R. BATTLEY.

Ophthalmic Hospital, Moorfields,
August 4, 1831.

W. WILSON, Printer, 57, Skinner-Street, London.

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OBSERVATIONS
ON
CALCULOUS DISEASES.

By B. C. BRODIE, F.R.S.

As delivered by him in his Surgical Lectures.

Operation of Lithotomy, continued.

THE first part of the operation of lithotomy, as I have already stated, is the making an incision into the urethra where it lies in the perineum; the second is the dilating, or dividing that canal where it is surrounded by the prostate. To facilitate the accomplishment of these objects, it is convenient to begin with introducing into the urethra this solid steel instrument, which we call a staff. It is of the figure of a sound; from which, however, it differs; first, in the handle, which, instead of being smooth and polished, is made rough, in order that it may be more firmly and steadily held; secondly, in having a groove, like that of a director, on its convex side. It is, in fact, a director, and intended to answer precisely the same purpose. The staffs sold by the instrument-makers are generally of too small a size. They should be as large as the urethra will easily admit without being painfully stretched. A large staff is more easily felt in the perineum than a small one, and it admits, of course, of a deeper and wider groove. The groove ought to become gradually shallower just before it terminates at the extremity of the instrument, in order that the point may be neatly rounded off. The edges of the groove ought to be carefully rounded off also. Attention to these circumstances in the construc-

tion of the staff, renders its introduction more easy. I generally begin the operation with introducing the staff into the bladder, merely because it is, on the whole, more readily managed when the patient is standing erect, than after he is placed on the table.

The next thing is to secure the patient in a proper posture, with the perineum exposed. About two feet six inches is a convenient height for the table. The patient should be placed on it lying on his back, supported by pillows, with his shoulders somewhat elevated. He should be directed to grasp the outside of each foot with the hand of the same side; and then the hand and foot are to be bound together by several turns of these bandages, which we call lithotomy garters. If the patient be corpulent, he probably will not be able to grasp his feet, and he must in that case grasp his ankles instead. Besides the lithotomy garters, it is convenient to apply another bandage—the neck strap, which is thrown over the back of the neck, and passed under each ham. These bandages are not employed with a view to prevent the patient struggling, as persons out of the profession generally suppose, but solely for the purpose already mentioned, namely, to keep him in a convenient posture, with the perineum properly exposed. Thus prepared, the patient is drawn towards the end of the table, with the buttocks rather projecting over it.

Several assistants are required, one to support the patient on each side, holding his feet, hands, and knees, and keeping the lower limbs well asunder; a third to give you the instruments, in the order in which you want them; and a fourth to hold the handle of the staff.

It is also convenient, though by no means necessary, to have another assistant, to support the patient's shoulders. Your assistant, who holds the staff, may stand on either side, but it is usual for him to stand on the patient's left side, in order that he may take the handle of the staff in his right hand.

The surgeon himself should be seated on a stool before the patient. He is first to attend to the position of the staff, taking care that it is held nearly perpendicularly; the handle of it being, however, a little inclined towards the patient's right groin. This causes the convexity of the instrument to project a little on the left side of the perineum.

In the first part of the operation your attention is to be directed to the staff. You are to feel it with your left hand, and the knife held in your right hand is to be directed towards it. It is a sure guide; following which, you can never err, even in the deepest perineum; on the other hand, if you lose sight of it, you are cutting in the perineum, as it were, at random; you divide parts which you ought not to divide; especially you are in danger of carrying your incisions too near to the ramus of the ischium, where the arterial branches of the internal pudic artery are of a larger size than in the centre of the perineum, and therefore more liable to bleed. I have seen some surgeons endeavour to introduce the point of the double-edged scalpel into the groove of the staff at the first incision. But I caution you against this, as a great error in the operation, except indeed it be in the case of a young and very lean subject. Where there is any quantity of fat in the perineum, or any thing even distantly approaching to what we call a deep perineum, if you attempt to cut at once into the groove of the staff, the result is, that you open the urethra too far forwards; you divide the *corpus spongiosum* of the penis, which need not in reality be divided at all; and you are then certain of wounding the artery of the bulb of the urethra, which otherwise is, in most instances, avoided. Another inconvenience which attends on this method of proceeding is, that the wound being too near to the scrotum, the cellular membrane of it is in danger of being infiltrated with blood; and another still is, that a greater mass of substance is left to be divided, when you continue the incision into the blad-

der, than there would have been if you had cut into the urethra farther back in the first instance.

I say, then, let the opening in the urethra be made deep in the perineum, behind the bulb, and as near as can be to the prostate. Place the thumb of your left hand on the skin over the staff; and in a man of ordinary size, about an inch and a quarter before the anus. Begin your incision immediately below this, on the left side of the raphe, and continue it backwards and towards the left side, into the space between the anus and the tuberosity of the left ischium. Here you may cut freely: you can injure nothing of consequence. Then feel for the staff in the wound; direct the point of your knife towards it, and carefully cut into the groove, where it lies in the membranous part of the urethra. All these incisions are, you will observe, made low down in the perineum, that is, near to the rectum. I have already given you what I conceive to be sufficient reasons for avoiding incisions in the upper part of the perineum. I may add another, namely, that if the external part of the wound be in the lower part of the perineum, there is a depending orifice for the free discharge of the urine after the operation, which there would not be otherwise. There is also a great authority in favour of this mode of proceeding. Cheselden made his incisions in the way which I have mentioned, as is proved by the anxiety which he evinced to avoid injuring the rectum. Had he done otherwise, it would never have entered into his contemplation that the rectum was in danger.

The next step of the operation is the continuance of the incision along the posterior part of the urethra, and the dilatation of the neck of the bladder. Some recommend this to be accomplished by means of the common scalpel, with which you have made the external incisions; the point being steadily introduced along the groove of the staff, with the edge turned outwards, so as to divide the left side of the prostate. This was Cheselden's method of operating. I draw this conclusion from Cheselden's own account of his operation, not from the absurd statement published by his cotemporary, Dr. Douglas, who evidently understood nothing of the matter, and indeed describes an operation which it is next to impossible to per-

form. But after having incised the prostate and neck of the bladder, Cheselden introduced the instrument which I now shew you, the blunt gorget, so as to dilate the wound still further, answering at the same time the purpose of a conductor for the forceps; and, as far as I can learn, this method was followed generally by the English surgeons up to the time of Sir Cæsar Hawkins. This celebrated operator, who exercised his skill, and acquired his reputation, within the walls of this hospital, caused one side of the gorget to be ground to a sharp edge, and thus converted the blunt into a cutting gorget. The cutting gorget of Sir Cæsar Hawkins (and all those that have been since invented are but modifications of it) was intended to supersede the use of the knife in opening the neck of the bladder, at the same time that it answered the purpose of a blunt gorget in other respects. It would be presumptuous in me to say that the cutting gorget is not a good instrument, when it has been employed, not only by many of our more distinguished, but by some of our most successful lithotomists. But I cannot but think that there are some considerable objections to it nevertheless. The incision is made as it is being thrust into the bladder. In consequence of the thick wedge-like form of the instrument, the prostate, and especially a hard and enlarged prostate, offers to it considerable resistance. A certain quantity of force is necessary for its introduction; and if that force be not well applied, the beak may slip out of the groove of the staff into the space between the bladder and rectum, an accident which is too surely followed by the death of the patient. Now I know that such an accident ought not to happen, but I also know that I have seen it happen to a very experienced and dexterous lithotomist. There is, of course, a still greater chance of its happening to an inexperienced lithotomist, (and all are inexperienced in the first instance.) These considerations lead me to recommend you not to begin with the cutting gorget: you may adopt it, if you please, afterwards. For my own part, although I have very frequently used the cutting gorget, I generally make the incision of the prostate with the knife which I now shew you. You will observe that the blade is broad enough to divide a considerable portion of the prostate, as it enters the bladder,

without it being necessary to increase the size of the incision by cutting laterally afterwards; and that, instead of a sharp point, it terminates in a beak, fitted to the groove of the staff. In ordinary cases, a knife of this kind, with a single cutting edge, is sufficient; but in cases of very large calculi, there are good reasons for dividing both sides of the prostate. There is no objection to this being done that I can discover; and for such cases I have been for some time in the habit of using this double-edged knife, with a beak projecting from its centre.

Having made the opening into the membranous part of the urethra, you are to insert the beak of the beaked knife into the groove of the staff. You then take the handle of the staff into your left hand, depressing it at the same time. You depress your right hand also, so that the handle of the knife, which you hold in it, lies in the lower part of the external wound. You are now to push the knife along the groove of the staff into the bladder, with its cutting edge inclined a little downwards towards the ramus of the ischium, if you use a single-edged knife, but holding it horizontally if you use one with a double edge. Let this be done slowly, cautiously, taking care that you do not lose the feeling of the beak sliding over the smooth surface of the staff for a single instant. Generally, as the knife enters the bladder, a few drops of urine escape, but never any large quantity. This being accomplished, you are to withdraw the knife along the groove of the staff in the same line in which you introduced it. Never cut with it laterally, except you find it afterwards absolutely necessary to do so, on account of the large size of the stone; for in cutting laterally, you will find it difficult to measure exactly the extent of your incision; and you may endanger your patient's life in consequence of your dividing the parts beyond the boundaries of the prostate.

The next step of the operation is to introduce your finger, directed by the staff, into the bladder, so that you may feel the parts which are divided, and determine whether the incision is properly made. If you operate on a child, or on a young and thin person, you may then at once introduce the forceps into the bladder. But if you operate on a full-grown person, and especially on one

having a deep perineum, it will be prudent for you first to introduce this instrument, which we call a blunt gorget, previously to the use of the forceps. The blunt gorget is, as you perceive, an oblong plate of steel, turned up at the edges, so as to present a concave surface above, and a convex surface below. The handle is inclined downwards, and that extremity, which is opposite to the handle, gradually becomes narrower, and terminates in a beak similar to that of the lithotomy knife. The surgeon takes the blunt gorget in his right hand, and inserts the beak in the groove of the staff; then, holding the handle of the staff in his left hand, and depressing it at the same time, he carefully introduces the gorget into the bladder. Having done so, he withdraws the staff, and leaves the gorget in the wound.

The gorget is intended to answer the purpose of a director for the forceps. But it answers another purpose also—it is a dilator of the wound. The knife divides only a portion of the prostate. The gorget splits the remainder as far as its breadth allows it to do so. Do not for an instant suppose that this is any rude or violent proceeding. It is far otherwise. The incision of the prostate having been begun by the knife, the extension of it by means of the blunt gorget is accomplished with the greatest ease. If you perform the operation on the dead body in the way which I have described, and dissect the parts afterwards, you will distinguish very readily the clean smooth surface made by the cut of the knife, from the fibrous, or striated surface, made by the splitting of the gorget. You will ask, why not make such a division of the parts by cutting laterally with the knife? Why prefer the dilatation of the wound by the blunt gorget? My answer is, that the separation of the parts with the latter instrument causes no hæmorrhage; and that it ceases as soon as it reaches the margin of the prostate—that is, as soon as it reaches the condensed cellular membrane, which forms what may be called its capsule.

Before explaining the use of the lithotomy forceps, I must shew you their construction. One of the handles terminates in a ring, the other in a loop. The blades become broader towards the extremity; their opposite surfaces are concave, and armed with small pointed

projections, or teeth. When closed as far as they can be closed, the ends do not exactly come in contact. Thus they are well fitted to hold the stone which they have seized, at the same time that, if the stone be not seized, it is impossible for them to pinch the mucous membrane of the bladder. This particular forceps is made according to the pattern of those which Cheselden employed on most occasions, as described by Douglas, and you will find them very generally useful. You must not, however, rely on these alone: you must have forceps which are longer and larger: others much smaller, especially for operations on children. You should be provided also with curved forceps, to be used where the stone lies in the hollow behind an enlarged prostate gland.

The surgeon, then, holding the handle of the blunt gorget with the left hand, introduces the forceps with his right, along the concave surface of the gorget, into the bladder. This is to be done cautiously, and without violence. But it is to be observed, nevertheless, that the forceps always experience a certain degree of resistance, and that some force is necessary to make them enter the bladder. You know when they have entered by the resistance ceasing, and, in many cases, by a gush of urine taking place at the time. In a deep perineum the forceps have to penetrate to a great depth before they arrive at the bladder. This is one of the sources of difficulty and doubt to a young surgeon, who is apt to think that the forceps must have actually entered the bladder, when they have, in reality, penetrated no farther than the prostate. The forceps having been introduced, the gorget is to be withdrawn.

The surgeon is not to open and close the forceps at random. He is to use them first as a sound, exploring the different parts of the bladder, until he has ascertained where the stone lies. The discovery of the stone will be very much facilitated by the introduction of the finger along the groove of the staff previously to the introduction of the blunt gorget—at least in most instances. In a case of enlarged prostate and deep perineum, where the finger will not reach the bladder, this mode of examination is, of course, of no avail. The stone being touched by the forceps, the blades are to be opened upon it, and the stone is, in general, readily grasped.

I have already mentioned a case in which the muscular coat of the bladder was ruptured in consequence of the surgeon too forcibly and hastily opening the forceps; and this will be a lesson to you as to your conduct in this part of the operation. But I conceive that the danger of such an accident as this is not the same in all cases. In some instances, when you begin the operation, the bladder is distended with urine; then when the instruments enter it, the urine rushes out, not impelled by muscular action, but by its own gravity, and the pressure of the viscera. Under these circumstances, when you introduce your finger into the bladder, you find the muscular tunic relaxed, with the mucous membrane hanging in folds; and, in consequence, they are not likely to be ruptured. In other instances the patient voids his urine immediately before the operation, or perhaps during the introduction of the staff. Here the urine, being made to flow by the patient's own efforts, the muscular tunic is contracted: it offers a considerable resistance to the opening of the forceps, and is liable to be ruptured, if they are opened rudely and incautiously. It sometimes happens that a small stone lies, as it were, concealed in some part of the bladder, perhaps beneath a fold of the mucous membrane, so that you cannot easily bring the forceps in contact with it. You will then frequently succeed in seizing it in the following manner. Expand the forceps carefully until the blades are widely separated from each other, holding them at the same time in such a position as that the blades open horizontally. This dislodges the stone, and causes it to fall to the lower surface of the bladder, and then, as you close the forceps, you find that you have seized it. In other cases, where there is a tumor at the neck of the bladder, caused by an enlargement of the prostate gland, the stone is liable to be lodged behind the projection. You feel the stone, but the forceps slide over its surface, and do not grasp it. It is in such a case as this that the curved forceps are useful, which are capable of dipping into the hollow behind the prostate. Under these circumstances, you may find it useful to introduce the finger into the rectum, and raise the bladder, by means of it, towards the pubes. It is evident, however, that this expedient can be of no use except where the

bladder is within reach of the finger, which it rarely is in a case of enlarged prostate.

The next thing to be done is the extraction of the stone with the forceps; and, simple as it may appear to be, there are several things to be attended to in this part of the operation.

The forceps are to be withdrawn from the bladder in the direction of the external wound. For the most part, it is better that the convexity of one blade of the forceps should be turned upwards, and that of the other blade downwards. Attention to this point is especially of consequence in cases where there is an enlarged prostate gland, forming a tumor projecting into the bladder. The smooth convex surface of the blade of the forceps is not interfered with by the projection; whereas, if the forceps are turned in the other direction, the stone coming in contact with the tumor, becomes, as it were, entangled by it, and the extraction of it is rendered difficult. The stone must be grasped with a certain degree of force, otherwise it may escape from the forceps. But on the other hand, it is important that you should take care not to apply so much force as to crush it, for this will make the operation not only more difficult, and tedious, and painful, but also increase its danger. You should always endeavour to satisfy yourself, before you proceed to the operation, what is the probable nature of the stone, in order that you may judge how far it is, or is not, likely to be easily broken. The lithic acid calculus is of a very hard texture, and is broken with difficulty. The oxalate of lime calculus is also hard, but it is more brittle than the lithic acid calculus. If the urine be alkaline, without containing the adhesive mucus secreted by the bladder, you know that the external layer is composed of the triple phosphate, and a calculus of this kind is much more easily broken than either of those which have been before mentioned. But the most brittle of all, and that which requires the greatest degree of caution in its extraction, is the fusible calculus, formed partly by the triple phosphate of the urine, and partly by the phosphate of lime, generated by the adhesive mucus, secreted by the membrane of the bladder; and the greater the quantity of the adhesive mucus, and the larger the proportion of the phosphate of lime, the more liable

having a deep perineum, it will be prudent for you first to introduce this instrument, which we call a blunt gorget, previously to the use of the forceps. The blunt gorget is, as you perceive, an oblong plate of steel, turned up at the edges, so as to present a concave surface above, and a convex surface below. The handle is inclined downwards, and that extremity, which is opposite to the handle, gradually becomes narrower, and terminates in a beak similar to that of the lithotomy knife. The surgeon takes the blunt gorget in his right hand, and inserts the beak in the groove of the staff; then, holding the handle of the staff in his left hand, and depressing it at the same time, he carefully introduces the gorget into the bladder. Having done so, he withdraws the staff, and leaves the gorget in the wound.

The gorget is intended to answer the purpose of a director for the forceps. But it answers another purpose also—it is a dilator of the wound. The knife divides only a portion of the prostate. The gorget splits the remainder as far as its breadth allows it to do so. Do not for an instant suppose that this is any rude or violent proceeding. It is far otherwise. The incision of the prostate having been begun by the knife, the extension of it by means of the blunt gorget is accomplished with the greatest ease. If you perform the operation on the dead body in the way which I have described, and dissect the parts afterwards, you will distinguish very readily the clean smooth surface made by the cut of the knife, from the fibrous, or striated surface, made by the splitting of the gorget. You will ask, why not make such a division of the parts by cutting laterally with the knife? Why prefer the dilatation of the wound by the blunt gorget? My answer is, that the separation of the parts with the latter instrument causes no hæmorrhage; and that it ceases as soon as it reaches the margin of the prostate—that is, as soon as it reaches the condensed cellular membrane, which forms what may be called its capsule.

Before explaining the use of the lithotomy forceps, I must shew you their construction. One of the handles terminates in a ring, the other in a loop. The blades become broader towards the extremity; their opposite surfaces are concave, and armed with small pointed

projections, or teeth. When closed as far as they can be closed, the ends do not exactly come in contact. Thus they are well fitted to hold the stone which they have seized, at the same time that, if the stone be not seized, it is impossible for them to pinch the mucous membrane of the bladder. This particular forceps is made according to the pattern of those which Cheselden employed on most occasions, as described by Douglas, and you will find them very generally useful. You must not, however, rely on these alone: you must have forceps which are longer and larger: others much smaller, especially for operations on children. You should be provided also with curved forceps, to be used where the stone lies in the below behind an enlarged prostate gland.

The surgeon, then, holding the handle of the blunt gorget with the left hand, introduces the forceps with his right, along the concave surface of the gorget, into the bladder. This is to be done cautiously, and without violence. But it is to be observed, nevertheless, that the forceps always experience a certain degree of resistance, and that some force is necessary to make them enter the bladder. You know when they have entered by the resistance ceasing, and, in many cases, by a gush of urine taking place at the time. In a deep perineum the forceps have to penetrate to a great depth before they arrive at the bladder. This is one of the sources of difficulty and doubt to a young surgeon, who is apt to think that the forceps must have actually entered the bladder, when they have, in reality, penetrated no farther than the prostate. The forceps having been introduced, the gorget is to be withdrawn.

The surgeon is not to open and close the forceps at random. He is to use them first as a sound, exploring the different parts of the bladder, until he has ascertained where the stone lies. The discovery of the stone will be very much facilitated by the introduction of the finger along the groove of the staff previously to the introduction of the blunt gorget—at least in most instances. In a case of enlarged prostate and deep perineum, where the finger will not reach the bladder, this mode of examination is, of course, of no avail. The stone being touched by the forceps, the blades are to be opened upon it, and the stone is, in general, readily grasped.

I have already mentioned a case in which the muscular coat of the bladder was ruptured in consequence of the surgeon too forcibly and hastily opening the forceps; and this will be a lesson to you as to your conduct in this part of the operation. But I conceive that the danger of such an accident as this is not the same in all cases. In some instances, when you begin the operation, the bladder is distended with urine; then when the instruments enter it, the urine rushes out, not impelled by muscular action, but by its own gravity, and the pressure of the viscera. Under these circumstances, when you introduce your finger into the bladder, you find the muscular tunic relaxed, with the mucous membrane hanging in folds; and, in consequence, they are not likely to be ruptured. In other instances the patient voids his urine immediately before the operation, or perhaps during the introduction of the staff. Here the urine, being made to flow by the patient's own efforts, the muscular tunic is contracted: it offers a considerable resistance to the opening of the forceps, and is liable to be ruptured, if they are opened rudely and incautiously. It sometimes happens that a small stone lies, as it were, concealed in some part of the bladder, perhaps beneath a fold of the mucous membrane, so that you cannot easily bring the forceps in contact with it. You will then frequently succeed in seizing it in the following manner. Expand the forceps carefully until the blades are widely separated from each other, holding them at the same time in such a position as that the blades open horizontally. This dislodges the stone, and causes it to fall to the lower surface of the bladder, and then, as you close the forceps, you find that you have seized it. In other cases, where there is a tumor at the neck of the bladder, caused by an enlargement of the prostate gland, the stone is liable to be lodged behind the projection. You feel the stone, but the forceps slide over its surface, and do not grasp it. It is in such a case as this that the curved forceps are useful, which are capable of dipping into the hollow behind the prostate. Under these circumstances, you may find it useful to introduce the finger into the rectum, and raise the bladder, by means of it, towards the pubes. It is evident, however, that this expedient can be of no use except where the

bladder is within reach of the finger, which it rarely is in a case of enlarged prostate.

The next thing to be done is the extraction of the stone with the forceps; and, simple as it may appear to be, there are several things to be attended to in this part of the operation.

The forceps are to be withdrawn from the bladder in the direction of the external wound. For the most part, it is better that the convexity of one blade of the forceps should be turned upwards, and that of the other blade downwards. Attention to this point is especially of consequence in cases where there is an enlarged prostate gland, forming a tumor projecting into the bladder. The smooth convex surface of the blade of the forceps is not interfered with by the projection; whereas, if the forceps are turned in the other direction, the stone coming in contact with the tumor, becomes, as it were, entangled by it, and the extraction of it is rendered difficult. The stone must be grasped with a certain degree of force, otherwise it may escape from the forceps. But on the other hand, it is important that you should take care not to apply so much force as to crush it, for this will make the operation not only more difficult, and tedious, and painful, but also increase its danger. You should always endeavour to satisfy yourself, before you proceed to the operation, what is the probable nature of the stone, in order that you may judge how far it is, or is not, likely to be easily broken. The lithic acid calculus is of a very hard texture, and is broken with difficulty. The oxalate of lime calculus is also hard, but it is more brittle than the lithic acid calculus. If the urine be alkaline, without containing the adhesive mucus secreted by the bladder, you know that the external layer is composed of the triple phosphate, and a calculus of this kind is much more easily broken than either of those which have been before mentioned. But the most brittle of all, and that which requires the greatest degree of caution in its extraction, is the fusible calculus, formed partly by the triple phosphate of the urine, and partly by the phosphate of lime, generated by the adhesive mucus, secreted by the membrane of the bladder; and the greater the quantity of the adhesive mucus, and the larger the proportion of the phosphate of lime, the more liable

is the calculus to be crushed beneath the pressure of the forceps.

If, having seized the stone, you find that it cannot be readily drawn through the neck of the bladder, you are to bear in mind, that this may be because you have hold of its long diameter. Let it then drop out of the forceps, and endeavour to seize it in a more convenient manner. In some cases you will find it expedient to dilate the wound of the prostate by a second incision. This, however, is never proper, except where you have divided only one side of the prostate in the first instance. You may then introduce a straight probe-pointed bistoury, and make an incision in the opposite or undivided side of the prostate. But this is to be done with the greatest caution. A careless incision may occasion a frightful hæmorrhage, or it may extend beyond the boundaries of the prostate into the cellular texture external to it, and I have already explained to you how much this may endanger the life of the patient.

It is scarcely possible for me to say too much as to the caution necessary in the extraction of a large stone. You must command, not only all your skill, but all your patience; indeed, patience is here the greatest indication of skill. You are to draw out the stone gradually, endeavouring to dilate the parts through which it is to pass, instead of tearing them, and it is astonishing to what an extent this gradual dilatation may be accomplished in the hands of a prudent surgeon. I have told you how important it is that you should avoid crushing the stone. But even this rule has its exceptions. A stone may be so large that no degree of gentleness and caution will enable you to extract it entire without extensive laceration of the neck of the bladder, extending into the surrounding cellular membrane, and under these circumstances, it is the smallest of the two evils that it should be broken into pieces. The fragments are to be extracted one after another, larger or smaller forceps being used according to circumstances. Some of the smaller fragments may be removed by means of this instrument—a kind of steel spoon, to which we gave the name of a scoop; and the very smallest of all may be washed out of the bladder by introducing the pipe of a syringe into it, and injecting a sufficient quantity of tepid water.

You are to ascertain, at last, whether the whole of the fragments are extracted, by exploring the cavity of the bladder carefully by means of this straight sound introduced by the wound, and in most cases also by examining it with the finger.

When a fusible calculus, containing a large proportion of the phosphate of lime, is broken, it often happens that some of the fragments are of so small a size that they remain like particles of coarse sand in the bladder, even in spite of all the precautions which you can take at the time of the operation, and further attentions are required. Let the patient recover of the first effects of the operation: then once or twice daily introduce a catheter by the urethra into the bladder, and inject half a pint of tepid water through it, by means of an elastic gum bottle. The water flowing in by the catheter will flow out by the wound, carrying the particles of sand with it; and thus, at last, the bladder will be emptied of them. In a case of enlarged prostate, indeed, this plan may not answer, as it often happens that the patient is not more able after the operation to empty the bladder by the wound, than he was before to empty it by the natural passage. For these cases you must be provided with a catheter of a large size, having an aperture five times the size of that commonly made, close to the point, on the upper or concave side. The tepid water being injected by the catheter will be discharged by it also, carrying every time some of the small fragments of calculi with it, until none are left in the bladder.

It very rarely happens that you meet with an encysted calculus where you perform the operation of lithotomy. In fact, in the great majority of cases of encysted calculi, the bladder is diseased; so that they are quite unfit for the operation. However, such an event occurs occasionally. A boy, about sixteen years of age, was admitted into the hospital in the year 1816. He had suffered a long time from stone in the bladder. There were these remarkable circumstances in his case—namely, that the stone could sometimes be felt distinctly with the sound, appearing to be of a large size, while at other times it could not be felt at all; and that, sometimes, when the bladder was empty of urine, it could be perceived dis-

tinctly with the finger from the rectum, while at other times, when there was urine in the bladder, it could not be detected at all by this mode of examination. In performing the operation, when I had introduced my finger into the bladder I could, at first, discover no stone. At last I felt it on the anterior part of the bladder, behind the pubes. It was not lying loose in the cavity of the bladder, but evidently contained in a cyst, communicating with the bladder by a round opening. By means of a probe-pointed bistoury, I carefully dilated the orifice of the cyst, and then, introducing my finger, separated the membrane of it from the stone, until I was enabled to take hold of the stone with the forceps. The stone is preserved among those in our Museum. It was not only an encysted stone, but an adhering one also, for it was brought away with a portion of the membranous lining of the cyst closely attached to it. The boy recovered.

After the operation your patient is to return to his bed, where he is to be laid on his back, with his shoulders and loins as much elevated as they can be without inconvenience, so as to make the wound in the perineum as depending as possible. The thighs are to be somewhat elevated by a bolster placed under the hams, and the knees are to be a little asunder. The urine flows, not through the urethra, but through the wound; and the first, and two or three succeeding gushes of it usually give the patient a good deal of smarting pain. In many cases, where there has been a deep perineum, and especially where the stone has proved to be of a large size, I have introduced an elastic gum canula through the wound into the bladder, and allowed it to remain for the first two or three days—that is, until there was time for the surrounding parts to become consolidated by inflammation. Such a canula makes an excellent conductor for the urine. It keeps the bladder always empty, and prevents the pain which otherwise is experienced on the first passage of the urine. It prevents also that obstruction to the flow of the urine which sometimes occurs after the operation, in consequence of the wound having become plugged by a coagulum of blood. In cases in which the stone has been of so large a size as to make it probable that, in the extraction of it,

the soft parts have been lacerated beyond the boundaries of the prostate, the canula will answer another good purpose, by lessening the danger of the urine becoming effused into the cellular membrane.

In ordinary cases the after-treatment is very simple. The wound requires little more than attention to cleanliness; for of what service can applications be to a wound, over which the urine constantly flows? It gradually contracts and granulates; and as it does so, the urine begins to flow by the urethra. As the wound becomes more contracted, more urine flows by the natural passage, and usually, in about a month from the time of the operation, the function of the urethra is completely restored, and the wound is healed.

In a few cases there may be a reason for applying leeches to the lower part of the abdomen, and in still fewer it may be right to take blood from the arm. Fomentations applied to the belly are sometimes proper also; and to this we may add, the precautions necessary after most other operations, with respect to, the functions of the intestines, and the diet.

There are cases, however, in which still further attentions are required. Where the bladder is in a state of chronic inflammation before the operation, secreting adhesive mucus, that inflammation is always aggravated by the necessary introduction of instruments at the time of the operation, and there is always an increased secretion of the adhesive mucus afterwards. Again, in some cases, where those symptoms did not exist previously, they are induced by the operation. Now, under these circumstances, the mucus being liable to deposit the phosphate of lime, and the whole of the urine being rendered alkaline, there is a great liability to a calculous formation, and it will often require much care to prevent this calamity coming a second time upon the patient. Opium, mineral or vegetable acids, and especially the decoction of the *Pareira Brava*, may be here resorted to with advantage:—but I need not occupy your time by a detail of the treatment which is proper under these circumstances. It is sufficient for me to refer you to what I said on this subject in the first of my lectures on calculous disorders. In some of these cases, the whole surface of the wound becomes

encrusted with a white calculous deposit. Stimulating applications to the surface of it are then likely to be useful, such as a lotion of decoction of bark and tincture of myrrh, solution of the nitrate of silver, or of nitric acid. As by other means the urine is brought into a more healthy condition, these lotions promote the separation of the concretion from the surface of the wound, which then gets into a state to granulate and heal.

[To be continued.]

MEDICAL JURISPRUDENCE.

FATAL CASE

OF

POISONING WITH CORROSIVE SUBLIMATE;

*With the Analysis and Detection of the Poison
after incessant Vomiting and Purging,
through a Survival of Eight Days.*

By ROBERT VENABLES, M.B.

Physician to the Chelmsford Provident Society,
&c.

It may, perhaps, at first sight appear that the details of a case of poisoning with corrosive sublimate could in these days present nothing of either novelty or interest to justify the medical jurist in submitting them to the consideration of the profession. In my apprehension, however, the phenomena of poisoning are not as yet so familiar nor so far established as to render any farther accumulation of facts unnecessary. On the contrary, though the details which I purpose to submit should be found to present nothing new, yet, as tending to confirm in part, at least, what has been already observed by others, they therefore appear to me of sufficient interest to claim the attention of the profession.

General History.—On Friday, the 27th of May last, my friend, Mr. Marten, of Billericay, surgeon, waited upon me to request my advice and co-operation in the investigation of the following circumstances:—On the day preceding, Thursday the 26th, Mr. Marten left home at an early morning, to visit his patient lying in the usual place at 1 o'clock, upon them living at

had been for some time under his care, he was informed that he had been sent for at an early hour in the morning to visit the servant girl, Ann Reeve, who had been taken suddenly ill in the privy soon after getting up; but in consequence of his absence from home he did not hear of the circumstances till his visit at the usual time, specified above. Mr. Gladwyn, after acquainting him with the circumstances as above, handed to him a paper parcel, which in the course of the morning he observed lying among the filth of the privy, and which he contrived to get out. Mr. Marten on opening the paper found that it contained two other separate parcels,—the one marked "Poison," containing a large quantity of what was apparently, and subsequently on analysis proved to be, corrosive sublimate, in large crystalline caked masses; the other, about an equal weight of blue copperas, or sulphate of copper. Furnished with these articles and the particulars of their discovery, Mr. Marten proceeded to visit the servant girl. She told him that very soon after she got up, she was seized with severe vomiting and purging, with violent pains in the stomach and all over the abdomen. What had been vomited had not been preserved, and to Mr. Marten's repeated inquiries she denied being able to conceive, much less to assign any cause, for the symptoms. Mr. Marten then drew the parcels from his pocket, told her he had what would convince her that he was better acquainted with the circumstances than she imagined, and that it would be useless to prevaricate, or attempt longer to deceive him. She then stated that a fellow servant of the name of Jas. Low had procured the articles produced at her own suggestion, and given them to her; and that she had taken that morning about the bulk of the first joint of her little finger* of each, dissolved in a tea-cupful of hot water; that immediately after she was seized with violent gastric and enteric pains, to which speedily succeeded vomiting and purging. Mr. Marten finding that vomiting had already taken place to an extent sufficient to dislodge the whole of the poison, immediately administered the whites of eggs, to decompose the poison that might per-

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chance have resisted the decomposing power of the gastric secretions, or dislodgment and ejection by the inverted action of the stomach. Mr. Marten also communicated to me that he had received a pocket handkerchief, upon which she had been sick at a considerable interval, after having swallowed the poison. I requested him to be very careful in preserving the handkerchief till an opportunity of examining it presented. On Tuesday, the 31st of May, Mr. Marten again called upon me, requesting that I would accompany him to visit the girl, who, he told me, notwithstanding bleeding and the usual means to abate the severity of the symptoms, still continued getting worse in despite of every remedy. I accompanied my friend, and found the patient suffering from pain—not acute—generally all over the abdomen, but more severe from the umbilicus to the left loin, and extending thence towards the groin in the course of the left ureter. As the pain had abated, so the vomiting had ceased, but she was much troubled with singultus. There was tenesmus, with scanty muco-sanguinous discharges from the bowels; and she stated that the vomited matters from the stomach were mixed with blood. There was a cold clammy perspiration, the respiration hurried, the countenance pale and anxious, and somewhat bloated; the pulse small, frequent, quick, and thready; the tongue white and shrivelled, but she did not complain of tenderness of the mouth or gums; there was no fœtor, nor did salivation supervene throughout. There was a total and permanent suppression of urine; and that there might be no room for doubt upon this subject afterwards, Mr. Marten at my suggestion introduced the catheter, but no urine flowed. She stated that the medicine had a very disagreeable taste; but I did not think it right, at so remote a period after her examination before the magistrates, when she inculpated Low, to put leading questions to her, lest she might have been betrayed into framing her answers from my questions, rather than from her own sensations at the period referred to. I merely prescribed a little *Ol. Ricini*, with the subsequent exhibition of a dose of *Liq. Opil. Sed.* Nothing, however, seemed capable of arresting the fatal progress, and she died

on Thursday, 2d June, having survived the ingestion nearly eight days.

On Friday, the 3d of June, Mr. Marten and myself proceeded to open the body between two and three o'clock in the afternoon.

Externally.—On separating the thighs, the vagina and anus appeared shrivelled and corrugated, and there was a kind of greenish-looking discharge, small however in quantity, about the os externum. The tongue looked white and shrivelled, with a slight appearance of desquamation. The gums were white, but not turgid; there was no appearance of previous salivation, nor of ulceration. Neither was there the slightest indication of any degree of mercurial erythema.

Internally.—On opening the thorax, the lungs seemed generally healthy. At the root and posteriorly they seemed turgid; but this turgescence seemed the after consequences of death rather than the effects of disease during life. The heart was slightly turgid, especially the substance of the ventricles. There was no other unnatural appearance observed in the thorax; nor were those of such a character as unequivocally to infer sensible disease.

Abdomen.—On opening the abdomen, we found in the cavity of the peritoneum a very small quantity of serum; but tinged with blood. The liver was generally healthy, but on the concave surface there was a slight degree of turgescence. The gall-bladder rather diminished in size, but distended with dark green bile. The peritoneal covering of the stomach was highly vascular and inflamed, the vessels becoming more numerous and more distended towards the pylorus. The omentum, especially close to its connexion with the stomach, contained a great number of crimson-coloured vessels, much distended. On the superior surface of the stomach, about midway between the cardiac and pyloric orifices, we observed a very remarkable kind of opaque, yellowish, white spot, of an irregular form, and about the size of a sixpence. The substance of the stomach generally was soft and flaccid; but for about four or five inches from the pylorus, it was very much hardened and thickened, feeling as if some round hard substance was passed into the pylorus. This hardening and thickening extended into

the duodenum, which was similarly affected through a considerable portion of its length. The duodenum externally was much more vascular than natural, but of a dark purple appearance. This vascularity extended to the beginning of the jejunum, from thence becoming much less remarkable, till at length it gradually disappeared. But throughout the length of the large and small intestines, we observed occasional patches of preternatural vascularity of small extent, the intervals being of the natural and healthy appearance. The pancreas was very much hardened, and its connexion with the viscera so consolidated, that they could not be separated without tearing the intestine. The spleen was harder than natural. Both the kidneys were enlarged, flaccid, and vascular; the *left* much more so than the right. The left kidney and its peritoneal covering were very vascular, and the vessels turgid, and the ureter leading from it in a similar condition, the vessels of a purple colour. The bladder was perfectly empty, and very much contracted in size, and the internal coat evidently in a state of irritation, from distended vessels. The uterus filled nearly the entire pelvis, but had not risen above it. On feeling it, it was found to contain a fluid, with something hard floating in it. The fundus of the uterus was very vascular, as if from the attachment of the placenta. On opening it, we found it distended with the waters, with a fœtus fully formed, excepting the genitals, which were not as yet perfectly developed, floating in the waters, attached by the cord and placenta, *not* to the *fundus*, but to the back part of the uterus. And at the place of attachment, the increased vascularity was very apparent externally, as at the fundus.

We now proceeded to remove the stomach and duodenum, for the purpose of examining the condition of these viscera internally, and their contents. In doing this, while endeavouring to separate the duodenum from its adhesions, it ruptured towards the jejunal connexion, although there was little or no force used, proving a dissolved or corroded state of the intestine. A ligature being placed a little above the cardiac orifice, and another on the duodenum, these viscera were removed, and on opening the stomach it was found to

contain about ten or twelve ounces of fluid matter, containing a large proportion of blood, with a little oil floating on the surface. There were no lumps or coagulums. The fluid contents were poured into a basin, and the surface of the viscera was washed with water, the washings being added to the contents in the basin.

We found the mucous coat in a few places, where not entirely corroded, much inflamed. Internally corresponding to the portion already noticed, as feeling so hard externally, there was an elevated hard patch, of a dark olive colour, nearly approaching to black. This morbid condition extended over a considerable portion of the stomach, occupying the pylorus, and nearly a third of the duodenum. It was of an irregular figure, elevated, and the coats, as it were, thickened in this part. It was no doubt the black warty condition mentioned by Dr. Christison, as the result of extravasation of blood into the coats and substance of the viscera, from the action of the corrosives. The mucous membrane of these viscera seemed to have been almost entirely corroded and discharged, for there was hardly a trace of the rugæ or plicæ which, in the healthy state, characterize the internal surface of the stomach. The black olive patch was of an irregular oblong figure, and of about the breadth of two five-shilling pieces. It occupied the under surface, where it might have been presumed the poisonous solution lodged.

The œsophagus, at its connexion with the pharynx, was preternaturally vascular and dark; but the rest of its length was rather white, and somewhat hard, or more firm in its consistence. This finishes the case up to the period of the inquest, when we were called upon to declare our opinion as to the cause of death upon the above facts. Let us now inquire how far we were authorized upon them to criminate the prisoner, or rather to infer death from poison, and the particular or individual poison.

The first question which presents is, could the mere symptoms justify the conclusion of poisoning? My own opinion is, that the answer is in the affirmative. It is true that I was not personally a witness of all the symptoms; but medical testimony often con-

sists in conclusions drawn from facts stated or observed by others. In the first instance, we find a woman in perfect health rise in the morning, free from any complaint, and almost immediately after swallowing a tea-cupful of hot water, in which *something* was dissolved, become affected with severe vomiting and purging. This certainly might be a case of cholera morbus, which often attacks very suddenly, without the slightest premonitory symptoms. However, suspicion is excited on finding that the symptoms immediately supervened the ingestion of some fluid or solution into the stomach. Then we are to inquire into the character of the vomiting and purging. A most important feature was the early appearance of blood in the stools and the vomited matters. Even at the advanced period of my visit, the mucus and blood in the stools, and the attending tenesmus, are not exactly consistent with cholera. An inquiry at an early period as to the taste, and the sensation attending deglutition, with the phenomena supervening, would, in all probability, have tended greatly to develop the nature of the case, and determine the description of poison. It may be urged, that there was no salivation: this might be accounted for variously. All the poison might have been ejected by vomiting, and none left for absorption, so as to have excited the specific action of the mineral. Again, I have met with several instances in which it was impossible to excite any mercurial action in the system; therefore, the absence of salivation, though, had it been present, it would have confirmed the species of the mineral, is no objection to the nature of the poison. Nor are these mere idle speculations; for had the woman lived, the prisoner would have been tried for the misdemeanor, and, of course, the origin or cause of the symptoms would have been a question. Of course the species of poison might have been a matter of doubt, but a diligent inquiry into the facts and collateral circumstances, would have enabled the medical jurist to arrive at a tolerably accurate conclusion.

The case having terminated fatally, we are next to inquire what information is to be derived from the appearances on dissection; and here, I think, there are strong grounds for a definite conclusion. The signs of inflammation

and irritation throughout the viscera; the black warty extravasation in the stomach and duodenum; the corrosion of the villous coat; and the decomposition, or almost solution, of a portion of the duodenum, together with the blood found intermixed with the contents of the stomach, are sufficient to prove the corrosive nature of the poison, while the taste, perhaps, would enable us to decide its specific character. The reader will here perceive that I have entirely left out of consideration the articles found in the privy; but if they be brought forward, and their composition determined, there could scarcely be a doubt, without once taking into consideration the discovery of poison in the contents or tissues of the viscera.

But although the medical jurist may feel fully satisfied in his own mind, and may deem further inquiry unnecessary, so far as his own satisfaction is concerned, yet it will be always the most prudent plan to inquire into every possible contingency, and to institute every investigation of which the case is susceptible. Upon this principle I undertook the analysis of the handkerchief upon which the deceased had been sick, as well as of the stomach, &c. and its contents. The contents and washings, &c. before described, were put into a bottle, which was corked up and sealed with my own private seal, and committed entirely to my custody. The stomach and duodenum were folded up in a piece of bladder, and, with the handkerchief and the bottle of contents, put into a basket, which I brought home with me; and in a day or two I commenced the analysis. The handkerchief, and the stomach, and duodenum, were cut into small pieces; and here I may remark, that, on cutting the black part of these viscera, the blackness in most parts went through half its thickness, and in some places through about two-thirds. The small pieces were put into Florence flasks, and boiled in distilled water, the water being added to the contents in the bottle. The fluid was now treated with protochloride of tin, according to Dr. Christison's method; but notwithstanding every possible care, I could not discover the slightest particle of mercury. I next boiled the solids in a solution of chlorine, and treated the solution with protochloride of tin, as before, but I found

no mercury. I now sealed up the flask containing the fragments of the stomach and duodenum, and put them by, while I instituted a number of experiments to discover the most efficient method for evolving mercury from its various combinations. After a number of varied experiments, which it would be hardly relevant to describe here, I was induced to fix upon the following, which with the result I shall now proceed to detail.

The flask, containing the stomach and duodenum cut into very small fragments, being unsealed, nitric acid in considerable excess was added, and being frequently agitated, was allowed to exert its action for several hours. In my experiments I found that nitric acid dissolved mercury under every form—from its most insoluble salts or combinations, to the actual metal itself—therefore I concluded, that if mercury existed in any form in the tissues of the stomach, the acid would take it up. Now when mercury is dissolved in nitric acid, if chlorine be passed through it, the nitrate is converted into corrosive sublimate. Therefore a solution of chlorine was added, and a stream of chlorine gas passed through the whole. The whole was now well boiled, so that the animal matter might be destroyed by the boiling nitric acid. After boiling a sufficient time, it was strained through a coarse cloth, and then filtered through filtering paper; a transparent though coloured fluid was obtained. The clear liquid was put into an evaporating dish, and evaporated down; a solution of chlorine being added as often as the fluid during evaporation became thick, or sensibly coloured. The evaporation was continued (adding chlorine occasionally) till it ceased to affect litmus paper in any very sensible degree. It was now evaporated till very concentrated, when a little distilled water being added, it was boiled and transferred into a tall glass jar. The fluid having been allowed to cool, a piece of litmus paper being thrown in was faintly reddened; and a piece of turmeric being also added, caustic potash was added till the fluid became perfectly neutral. I now poured in protochloride of tin, when a slate-grey colour was immediately struck. Upon standing, a dark-coloured precipitate subsided, which was allowed twenty-four hours to collect, when the super-

natant fluid was poured off, and the precipitate transferred to a smaller tube well washed with distilled water. It was now transferred to a watch-glass, and the powder on subsiding and collecting had a *very black* appearance. The water was removed by the capillary action of cotton wicks, and the powder was then dried by the side of a stove. When dried, by the aid of a lens innumerable globules of quicksilver were discovered; but they were so minute, that with the aid of a good lens even, their globular form was not distinct to persons unaccustomed to looking at such minute globules. To myself the globular character was very satisfactory and distinct. The dried mass, however, was put into a *ball-tube*, such as figured in Dr. Christison's plate for the subliming of arsenic; and on applying the flame of a spirit-lamp, a kind of metallic dew was raised into the narrow neck of the tube. The neck was heated, and the ball separated. The closed part of the neck was now removed by a file, and, with a lens, the dew was found to consist of a number of minute globules. By applying the point of a pen-knife they were united into one, which thus gave unequivocal indications of the mercurial character. I estimated the quantity thus obtained to be about 1-16th of a grain of metallic mercury. Not being provided with decimal weights, I weighed out a grain of metallic mercury, and divided it into sixteen equal bulks, and I found that one of these and the mercury I discovered were as nearly equal as possible in bulk, and precisely equivalent in weight.

I must here offer a word or two upon the mode of analysis which I adopted. To have followed Dr. Christison's plan with the *solid substances of the viscera*, would, I fear, have left such a quantity of animal matter—and which the boiling caustic potash would by no means remove—as, by its empyreuma, would have completely prevented the development of the mercury during the distillation, or sublimation. The method of analysis here described I consider as some improvement, because the nitric acid, having in a great measure destroyed the animal matter, and the mercury being held in solution, and then precipitated from the filtered liquor, is obtained by the subsequent sublimation without any inconvenience

from empyeuma. When the contents of the stomach contain parsley, cress, tea-leaves, or dust, or green vegetables, minutely divided, it is impossible to remove them; and therefore, if Dr. Christison's method be followed, the black powder having been dried, should be subjected to the action of nitric acid, to dissolve out the mercury. Chlorine should then be added; and this is an important part of the process, because, by the addition of chlorine, the nitrate is converted into corrosive muriate or sublimate, by which means precipitation is prevented by dilection. To the solution thus prepared, and if necessary neutralized, if protochloride of tin be added, the mercury is precipitated in the metallic form. Should these (as happens in some very peculiar cases) occur, any precipitation of animal matter, with the protochloride of tin, or should the oxyde of tin itself precipitate, the precipitate is to be treated with caustic potass, and, if necessary, boiled with it. The potass will dissolve both the animal matter and the oxyde of tin, and will leave the black powder, which is mostly metallic mercury perfectly free from animal matter, and which, on being thoroughly dried, generally runs into globules. If they should not be sufficiently distinct, the black powder should be put into the tube before described, and sublimed, and the mercury is rendered beautifully polished and pure, if it be mixed previously with a small proportion of *clean bright* iron filings, and distilled from these. The analysis in this case afforded sufficient evidence of death from poisoning by some corrosive preparation of mercury. For instance, the question might be put, would not calomel, blue pill, the grey oxyde, or any other of the milder preparations of mercury, administered in medicinal doses, have yielded, under similar treatment, a portion of metallic mercury equal to that obtained? Undoubtedly: but that could not have been the case in the present instance, because the milder preparations so administered would have been found in the contents, or in the washings of the stomach; and not so intimately combined, or, as it were, amalgamated with the tissues and substance of the viscera. It is by virtue of its corrosive action that the mineral forms so intimate a combination with the animal tissues, and therefore none but a corrosive preparation, and that

too in a dose sufficient to produce corrosion, could have yielded such results. Therefore the medical jurist is authorized to infer, that no other than a corrosive preparation could have produced the corrosion; and corrosion being proved by the mode of analysis, the dose being adequate to such an effect, must have been sufficient to cause—nay, actually did cause, the death.

With respect to the delicacy of the process adopted, I believe it will be found equal, if not superior, to any hitherto suggested as applicable to medico-legal purposes, while it is also free from many of the inconveniences which attend in particular cases all the others that have been recommended. In order to ascertain whether any mercury was lost by this process, I subjected what remained on the coarse cloth and the filter to destructive distillation, but not a particle of mercury was yielded from these materials. The evolution of one-sixteenth of a grain of metallic mercury, from its combination with the substance of the whole stomach and duodenum, I think sufficient proof of the extreme delicacy of this method of analysis; besides which, there is a great advantage in having the black powder precipitated free from any admixture that can obscure the subsequent sublimation, which is seldom necessary, unless the quantity of mercury be extremely minute.

It is not always that mercury can be detected in cases of poisoning, or at least so it is generally asserted. Undoubtedly corrosive sublimate, from its solubility, is readily ejected by vomiting, and may thus be removed beyond the reach of chemical analysis. But, perhaps, if the tissues of the stomach, duodenum, &c. were subjected to such an inquiry, I cannot help thinking, that in most fatal cases, where life was not prolonged to any remarkable length of time, mercury may be discovered. In the present case, death was protracted to an unusual length of time; indeed I believe there is no instance on record of death being so long deferred in this variety of poisoning with the corrosive preparations of mercury. Dr. Christison arranges the cases of poisoning with mercury under three heads, or varieties. In the first variety the symptoms are merely those of irritation in the stomach and bowels—namely, pain in the pit of the stomach

and all over the abdomen; the pains being much increased on swallowing or taking any thing into the stomach. With these attend severe vomiting, and profuse diarrhœa. As the case advances the symptoms of cholera change into those resembling dysentery, and we have tenesmus, scanty muco-sanguineous stools, and the vomited matters are often mixed with blood. In this way the case proceeds to a fatal termination, which, according to Dr. Christison's inquiries, usually occurs in from twenty-four to thirty-six hours; but the longest duration, in fatal cases, he states to be *three days*—the shortest, eleven hours. The case, however, now detailed, unless it prove an anomaly, certainly invalidates the above rule; for it did not terminate fatally till after a duration of seven days, and, from the most accurate account I can obtain, eight hours and a half.

I have not taken any notice of the blue copperas, for I could not detect a particle of copper; and, indeed, I do not conceive that it had any share in the poisoning of the patient. On the contrary, it is not improbable that it may have acted by exciting vomiting, and have so contributed to the discharge of the greatest part of the corrosive sublimate, and perhaps may have contributed, in some degree, to defer the fatal termination to so unusual a length of time. Be that as it may, I find that the solutions of corrosive sublimate and of sulphate of copper, when mixed, exert no sensible chemical action upon each other, though allowed to remain so mixed for a month. It is probable that the deceased used the boiling pump or hard water of this neighbourhood, to effect the solution of the two salts. I need not remind the reader that, in such a medium, both salts (the corrosive sublimate and sulphate of copper) would undergo a partial decomposition. Whether the resulting compound of mercury still remained a corrosive poison, though less rapid and active in its operation, it is difficult to say; and whether the solution containing corrosive muriate unaltered was ejected from the stomach before it had time to exert any deleterious influence, I have found it impossible to obtain any satisfactory information sufficient to form even a conjecture, much less a probable conclusion.

Having now detailed the principal circumstances interesting in a medico-

legal point of view in this case, I feel it a duty to offer some observations to the public upon the nature of the crime charged. It is to be deplored that the public ignorance should be so great, and that persons should risk their lives in attempting to perpetrate a crime which, as a general principle, it is impossible to commit. The prisoner in this unfortunate case, and the deceased, had indulged in an illicit intercourse; and the deceased, believing herself a child, was desirous of relieving herself of her burthen, sooner than, in the natural course, was likely to happen. Accordingly she directed the accused to purchase for her corrosive sublimate and blue copperas, with the intent of procuring abortion, by taking it internally. The accused, by procuring the medicine with the criminal knowledge, rendered himself guilty of any consequence that might ensue; and death having succeeded, he of course became in law a murderer, and amenable to all the punishments attached to this crime. Now it is deplorable to witness cases of this nature, and to see individuals incurring all the responsibilities attached to crimes which they cannot perpetrate. It is a universally admitted fact, that there is no known medicine which, by its internal administration, can produce the miscarriage of a pregnant woman. Such a result may happen by accident, but never from medicine, unless through the death of the mother involving that of the child, by cutting off the maternal supplies necessary to the support and growth of the fœtus. In the present unfortunate case I am satisfied that the life of the fœtus was not only prolonged to the latest moment of the mother's existence, but that it even outlived its parent. Indeed it seems impossible to conceive how medicine, internally administered, could destroy the vitality of the child, without conceiving that it could, by some unknown route, enter the vessels and organs of the fœtus without passing through the maternal circulation. That there might be nothing left to question, I analyzed the fœtus in this case, but could not detect a trace of mercury. The only other way in which internal medicine could contribute to abortion, is by the inverted action of the stomach exciting or irritating the uterus prematurely to expel its contents. At an early period of utero-gestation, retching and sickness

prevail to a great extent, without involving such a result; and we know of no safe means of acting on the nervous system without endangering the health, even the life, of the mother. Therefore, upon the whole, we may lay it down as an established principle, "that there are no known medicines capable, by their internal administration, of suspending, suppressing, or in any way subverting, the natural progress of utero-gestation; a principle which, I trust, the public press will not fail to disseminate, and, as much as in their power, to inculcate.

CASES OF POISONING BY SULPHURIC ACID.

BY MARTIN SINCLAIR, M.D.

Fellow of the Royal College of Surgeons of
Edinburgh, &c.

CASE I.—John Capper, aged 27, and of a phthisical habit, swallowed on Tuesday the 29th of June, three fluid ounces of concentrated sulphuric acid, which was immediately followed by excruciating pain at the stomach, retching, and violent vomiting. When called to the patient, about fifteen minutes after the draught had been taken, I found him labouring under these symptoms in a very aggravated degree,—the pain at the stomach being most severe, inasmuch that he was compelled to keep his body in a bent position, supported by two individuals,—and the retching and vomiting almost incessant. About four ounces of prepared chalk diffused in a quart of milk were immediately exhibited*, which the patient swallowed in divided portions, at short intervals. A similar mixture, with the addition of one ounce of castor oil, and two ounces of olive oil, was injected per anum. By these means the sufferings of the patient were somewhat diminished,—the pain at the stomach being less severe, and the vomiting, although more copious, and accompanied with blood, easier, and free from acrid eructations.

The patient was left in a comparatively tranquil state, with instructions

to take freely mutton broth and other stimulants. The following mixture was also prescribed:—

R Pulveris Opii gr. viij. Cretæ preparatæ
ʒiv. Lactis recentis lbij. Misce. Sumat
æger uncias duas subinde.

6 P. M.—Four hours have now elapsed since the sulphuric acid was swallowed. The patient is extremely feeble and exhausted, the pulse quick and small, and the skin cold and bedewed with a clammy sweat; the pain at the stomach very severe, and the vomiting occasionally urgent, accompanied with the ejection of tough mucus and a dark-coloured liquid resembling coffee-grounds; deglutition considerably impaired, and performed with difficulty, in consequence of which very little of the mixture and mutton broth have been taken. The clyster has been retained.

Pergat in usu medicamentorum et demulcentium.

10 P. M.—Nearly in the same state; deglutition more difficult; the respiration also somewhat impeded.

Pergat ut supra.

30th.—9 A. M. Had a scanty alvine evacuation about eleven last night; passed the night tolerably free from pain, but did not sleep; pulse quick, somewhat fuller; heat of surface moderate; complains of the constant gnawing pain of the stomach, and of the inability to swallow; respiration still impeded.

Sumat Olei Ricini ʒss. omni bihorio donec alvus responderit.

1 P. M.—Could not swallow the castor oil.

R Olei Ricini, Olei Terebinthinæ aa. ʒij.
Decocti Avenæ ʒxxviii. Injiciendum
per anum partibus vicibus.

6 P. M.—Clyster retained; no evacuation from the bowels.

R Olei Crotonis Tigllii gtt. ij. Sacchari
Albi ʒss. Misce et divide in chartulas
duas, quarum sumat æger unam statim;
repetatur dosis, duabus horis exactis, si
opus sit*.

10 P. M.—The exhibition of the croton oil produced an acrid burning sensation in the fauces, followed by violent vo-

* An attempt was made to throw this mixture into the stomach by means of the stomach pump; but, owing to the excoriated state of the œsophagus, this was found to be impracticable.

* As the croton oil produces a pungent sensation in the healthy fauces, it was exhibited, in the present instance, to ascertain its effects upon the excoriated fauces.

takings, which precluded him from attempting to take the second dose; symptoms nearly the same as before; feels extremely weak.

1st July.—9 A. M. One scanty stool last night; pulse feeble; complains much of the gnawing pain at his stomach, and of an oppression in his bowels, "from want of a free passage through him;" he hangs his head over the bed, supported on a chair, constantly hawking up a tough mucus, which produces a sense of suffocation; breathing laborious; deglutition almost impracticable, and attended with a convulsive cough. He is perfectly sensible of his situation, and prays for death to relieve him of his sufferings.

R Pulveris Aloes ʒij. Decocti avenæ lbij.
ft. enema statim injiciendum. Injiciantur etiam subinde jusculi Bovini ʒviij.

1 P. M.—No evacuation of the bowels; pulse feeble; respiration laborious; can swallow only a tea-spoonful of liquid at one time, and that with the greatest difficulty; still complains of the oppression in his bowels. The cuticle covering the tongue was detached this morning.

R Infusi Sennæ ʒij. Sulphatis Magnesiæ ʒss. Tincturæ Sennæ compositæ ʒij. fiat mistura partitis vicibus sumenda.

6 P. M.—Is much weaker; no amendment.

R Tincturæ Hyosciami ʒi. Tincturæ Lavandulæ compositæ ʒss. Aquæ Puræ ʒl. fiat mistura cujus sumat æger drachmas duas subinde.

The patient gradually sunk, and expired at 9 P. M. having survived fifty-five hours. He retained his faculties to the last.

Appearances on Dissection.—The internal surface of the mouth, pharynx, and œsophagus, was completely corroded, and in the course of being detached; that of the mouth, commencing at the lips, being of a whitish, and that of the pharynx and œsophagus of a brownish, colour. The rima glottidis was contracted; the epiglottis swollen, and, with the top of the larynx, much inflamed. The cardiac orifice of the stomach was hard and contracted. The stomach contained a putraceous mass, which consisted of carbonate and sulphate of lime, bile, and the secretions of the stomach. When cleared of these substances, the cavity of the stomach was found to be much diminished in

size; its internal surface was contracted, corrugated, puckerd up into fold similar to the valves conniventes of the small intestines, but much larger. On the great arch, towards the cardia, a large patch in a high state of inflammation was observed, where the sulphuric acid seemed to have expended its influence; the colour was in some parts of a deep red, in others of a chocolate brown, and in others verging to black; the consistence of this patch was firm, without any separation of its layers; its size was about four inches in diameter. On the great arch, also, about three inches from the pylorus, which was healthy, a softening and corrosion was observed, but without any appearance of surrounding inflammation. This alteration of structure did not appear to arise from the action of the sulphuric acid, but to originate from the post-mortem agency of the gastric juice. The intestines, principally the smaller, were distended with flatus, and highly inflamed on the peripheral surface, which was tense, shining as if varnished, and beautifully arborescent from the injection of the minute vessels. The internal surface was healthy; the œmentum was also inflamed; the remaining abdominal viscera were healthy. The brain and thoracic viscera were not examined.

The above case is not presented to the notice of the profession as containing any thing novel either in the symptoms or in its mode of treatment, but as exhibiting an incontrovertible instance of the effects of sulphuric acid upon the human system. The subject of the case, John Capper, was a young man of regular habits, and of considerable genius; but having been seduced from the paths of rectitude and virtue by a married woman, who lusted him with her affection, promising him marriage when her husband died, and afterwards deserting him, he was impelled to commit this suicidal act, "to be revenged upon himself for having placed any affection on such an unworthy individual."

The case, however, is interesting to the physiologist and practical physician. To the physiologist it exemplifies in a remarkable degree the conservative energy of the stomach in resisting the influence of the most potent irritants; and when we contrast this with the post-mortem influence of the gastric juice, in

causing erosions and perforations of the stomach, as exemplified in the writings of Hunter, Gairdner, and Carswell, we cannot but exclaim that the body is "fearfully and wonderfully framed."

As Dr. Christison observes*, "When made aware of the rapidity with which other irritating poisons prove fatal, and the slight signs they commonly leave of their operation, we cannot fail to be struck with discovering what the animal frame will sometimes endure from these the most violent of all irritants, and nevertheless recover."

To the practical physician, also, the case is not devoid of interest, as exhibiting the effect of treatment by chemical antidotes; and it also teaches us the lesson to administer our remedies, in every case of poison, with the utmost promptitude; and in no case to despair of doing good to suffering humanity. By medical writers, the carbonate of magnesia is recommended in preference to the carbonate of lime, and is certainly superior, by producing a saline aperient, by combining with the sulphuric acid. In the present case, however, the carbonate of lime was preferred as having a greater affinity for sulphuric acid, and because, being more easily miscible with liquids, it could be administered in greater quantity in a short space of time.

I omitted to state that Capper was fasting when he swallowed the sulphuric acid—having taken no food that day excepting a cup of coffee, without bread or any other solid, at 9 A.M.

CASE II.—On Tuesday, the 8th of November, I was instructed by the coroner to open the body of John Hilton Morrabin, aged 4 years 10 months, who died at noon, the 4th of the same month, under suspicion of having been poisoned by his step-father.

The body externally presented nothing unusual, excepting at the upper lip and angles of the mouth, where several spots about the size of a small kidney-bean were observed. These were of a brownish colour, such as is produced upon the cutis by the action of concentrated sulphuric acid. The lining membrane of the month and tongue was of a greyish or rather ash colour, and in the course of being detached; and two erosions about the size of a sixpence were observed on the tongue. The pharynx was so contracted that a probe

could scarcely pass the strictured part. Upon laying this open, the internal surface was of a reddish-brown colour, and the lining membrane in part detached, and where it remained it had the appearance of moistened parchment, and came off with the greatest facility. The internal surface of the stomach was corroded in some parts, charred in others, and in the great arch a perforation, about $1\frac{1}{4}$ inch in diameter, was observed. The coats of the stomach were much attenuated towards the perforation, and externally were of a very dark colour, nearly three-fourths of an inch around it. The charring could not be removed by washing; and upon part of the charred substance being picked off, the subjacent texture was found of a pinkish or rather delicate crimson colour. The cardia and pylorus were not contracted or otherwise affected; the omentum, liver, intestines, with the peritoneum, were in a state of high inflammation; about six ounces of a deep dark chocolate-brown liquid were found in the stomach and the general cavity of the abdomen, whence it had been effused through the perforation mentioned above. This liquid was, by the instructions of the coroner, analyzed by Mr. Davies, lecturer on chemistry, and was found to contain a considerable quantity of sulphuric acid.

The trachea, larynx, and epiglottis, were much inflamed, and the investing membrane of the latter, as well as of the glottis, was of a whitish colour, and elevated, presenting the appearance of having been boiled. The aperture of the glottis was not, however, contracted.

The symptoms exhibited by the child during life, so far as they were elicited at the trial, were, frothing at the mouth, burning in the throat and stomach, constant writhing of the body, inability to swallow any liquid (from its being ejected by the nose as soon as taken into the mouth), and convulsions of the whole body. These symptoms continued until the child's death, which took place about four and a-half hours after, as was supposed, the administration of the poison. No medicines were administered, as the father "stood over the child till he saw it fairly dead," and "would not send for any doctor."

The step-father, Moses Fernely, who had always been cruel to the child, was tried for the murder at the late spring assizes at Lancaster; was con-

* On Poisons, page 116.

victed by the clearest circumstantial evidence; and was executed for the awful crime on the 12th of March, and his body given for dissection. It appeared in evidence that the child was quite well about seven o'clock; that it was found labouring under the symptoms described a little before eight; and as it died about twelve at noon, it consequently survived the administration of the poison about four hours and a-half, as has been noticed above*.

Manchester, 4th May, 1831.

EFFECTS OF NITRE ON THE BLOOD.

To the Editor of the London Medical Gazette.

Truro, August 6, 1831.

SIR,

IN reading the "Epitome of the Symptoms and Treatment of Cholera," lately published in the London Medical Gazette, my attention was particularly arrested by the important fact therein stated, that the blood drawn from patients labouring under the disease is so black as to constitute a remarkable peculiarity, and to lead to this observation, "that one of the most striking phenomena of the disease consists in the imperfect arterialization of the blood." For this condition of the blood there is, I believe, a specific remedy to be found in nitre—a fact which has long been known to me, and acted upon in the course of many years' practice. There is no medicine, perhaps, in common use, so vaguely administered as this is; but however absurd it may be to expect that the same medicine should be capable of meeting the most contradictory intentions, or be equally applicable to hæmoptoe, the precursor of phthisis, as to sea-scurvy, yet it is but fair to expect that there must be some considerable virtue inherent in a salt which has gained such extensive reputation; and what I am now anxious to press upon public attention is its marvellous effect upon the vital fluid, when in that state in which it is said to be in the prevailing cholera. In the fifth volume of your Gazette there is notice taken of a report from Mr. Charles Cameron to the Navy Board; relative to its astonishing efficacy in scurvy; from which it

would seem capable not merely of supplying the place, but of superseding the use of vegetable acids altogether. This report was particularly interesting to me, from the confirmation it afforded of my own previous views, and I have fully expected that additional accounts of the employment of nitre under similar circumstances would, ere this, have appeared; but, having been hitherto disappointed, I feel it the more necessary to endeavour to excite the further attention of medical men to a medicine which I have invariably found of the greatest service in cases where the blood has degenerated into that state in which it exists in purpura hæmorrhagica, in the melaena of malignant fevers, and, as I believe, in sea-scurvy, and in the Asiatic cholera. It is probable that in all these cases the air, conformably with the experiments of Dr. Davy, ceases to undergo the usual healthy change in respiration; but it would be extremely difficult to show, whether the first departure from health takes place in the functions of the lungs, or in the blood itself, from contagion, intemperance, poverty, and filth, mental depression, and consequent imperfect chyli-fication. Not unfrequently these causes are combined; and imperfect nutrition, vitiated air (whether the vehicle of some specific contagion or not), and depressing mental influences, are associated in one common warfare, and are formidable in proportion as they are so. And, although it would be going much too far to suppose that any medicine whatever should be capable of arresting the fatal progress, in many instances, of such concentrated mischief, yet it may be very possible that, some specific being found for that condition of the system on which fatality mainly depends, the utmost point may be attained that can be expected from medicine. But, even then, attention will be required to all the other auxiliary means and appliances which the stage of the disease, or the modification of particular cases, may demand; which, in fact, is no more than is due to the successful exhibition of all specifics. Accordingly, there seems to be equally strong evidence in favour of the lancet in cholera, provided its use be opportune, as of the fatal tendency of venesection when recourse has been had to it injudiciously. And is not this equally true with regard to malignant fevers and many of the pre-

* Edinburgh Medical and Surgical Journal.

mus, the tendency of which is to degenerate into a supercarbonated state of the blood?—into that state where the effect of nitre is so extraordinary. The same remarks apply to mercurial and other purgatives, which have not wanted their full share of commendation. Whilst, therefore, it must be allowed that hundreds may have been saved from the yawning jaws of cholera by the use of the lancet, and others by the powerful action of calomel on the system of the vena portæ, yet still it continues to kill its thousands and tens of thousands; and to this tremendous residue of victims our utmost attention is called, and I have heard of no medicine likely to be of so great service (I will not venture to say, judging from analogy, how great) as nitre. It may have been already tried, and may have failed, and, if so, these remarks can do no harm; but I should even then require to know whether it has been used with due regard to the symptom which it seems to be so calculated to meet, and without neglecting other auxiliaries.

The report of Dr. Stevens on the treatment of Malignant Fevers in the West Indies, for a knowledge of which I am likewise indebted to your valuable Gazette, is very much in favour of these views, only that, with reference to the supercarbonated state of the blood, my recommendation applies to the use of nitre exclusively of the other neutral salts. The carbonate of soda, or the aperient combinations of soda or potash with any of the vegetable or mineral acids, may have their appropriate advantages, but they have not the peculiar effect of nitre upon the blood. Its effects on persons labouring under sea-scurvy are, in fact, described by Mr. Cameron as almost miraculous; and I was as prepared to give the fullest credence to his testimony, as I was gratified by the perusal of it. Combining, therefore, the evidence of Dr. Stevens and others, of the efficacy of neutral salts in the malignant fevers of the West Indies, where the state of the blood is supposed to be similar to that in cholera, with the almost miraculous efficacy of nitre in scurvy, it is at least very desirable that the experiment of its effect in cholera should be fairly made—made with due regard to all the symptoms and varying circumstances of the disease exhibited in different cases. When there is time, and the condition of the

patient may seem to require it, venesection and an aperient, as in the fevers of the West Indies, may precede, if they do not supersede, its use; but where the stomach and bowels have already given way, and the powers of life are sinking, the specific, as I would fain consider it, should be had recourse to instantly. It has agreed best when given, in cold water a little sweetened, in a dose of from ten grains to ℥j. every two or three hours; and, in urgent cases even more frequently; but, ordinarily, the repetition of the dose three times a-day will suffice. Mr. Cameron's dose was 3j. which, I believe, would often be more than the stomach would bear. Still it is impossible to lay down any rule for the extent to which nitre may be given in any particular case; and it may be said generally, that, as long as the stomach is not offended, there is no danger from excess. With respect to diet, the lightest possible food, consisting chiefly of thin farinaceous preparations, is best, and should be persisted in until convalescence is established.

I have further papers by me, illustrative of the above remarks, but there is already evidence enough before the public to justify the trial of a remedy in cholera which possesses such extraordinary power in analogous diseases; and, in the sanguine hope that it may be found of vast importance in correcting that desolating scourge of a widely extended portion of the globe—getting, as it likewise is, daily nearer and nearer to our own shores—

I am, sir,
Your very obedient servant,
C. CARLYON.

CASE OF SEVERE CHOLERA.

TREATED BY JOHN FORREST, M.D.
Assistant Surgeon, 23d Regiment.

Drogheda, 30th July, 1831.

I WAS last night requested by Dr. Pentland, Surgeon to the Civil Hospital of this place, to see a case of cholera morbus.

The patient was a tailor, about twenty-two years of age. I saw him at four P.M. when he stated, that on getting out of his bed in the morning he was suddenly seized with giddiness, so that he

was unable to stand, and which was chiefly afterwards followed by severe purging and vomiting, and cramps of his legs.

July 29th, 4 P.M.—Surface cold, but not moist; pulse at the wrist and temples quite imperceptible; constant desire to drink cold water; feeling of load and oppression on his stomach; great restlessness; anxiety of countenance; and severe cramps of his legs, confined principally to the gastrocnemius muscles; his fingers were also occasionally cramped. The only medicine he had taken during the day was a mixture of tincture of rhubarb and peppermint water, but which his stomach immediately rejected.

5 P.M.—He was put in a warm bath, which seemed to give him some relief, but had not any effect in allaying the irritability of the stomach. He then took a pill, consisting of two grains of opium, and five grains of calomel; to be repeated every hour, to abstain from drinking, which has hitherto invariably induced severe retching and vomiting.

5 P.M.—Simplicities were ordered to be applied to his legs, and to the epigastrium.

7 P.M.—Is much in the same state. The simplicities having produced a good deal of pain, he tore them off. Cramps not abated; still very restless; stomach not so irritable.

In taking one of his pills just now, we gave him a table spoonful of spirits and water, containing 80 drops of kassianum, which has induced severe vomiting and cramps of his legs.

Another pill without any liquid was shortly after given to him. At this time it was deemed advisable, to prevent after reaction, in the event of the disease appearing more generally in this neighbourhood, to remove the patient from his lodgings to a ward in the Civil Hospital.

10 P.M.—Has not had any cramps during the last hour; stomach less irritable; great desire to drink cold water. Pulse at the wrist perceptible; anxiety of countenance not so great.

A table spoonful of hot brandy and water to be given occasionally during the night. Pills to be continued.

July 30th, 8 A.M.—Took two pills last night, after we saw him, when he fell asleep. No vomiting, purging, nor

cramps; is greatly improved this morning; countenance not so contracted; surface warm; pulse quick and weak; complains of great thirst.

10 A.M.—Has taken a small bit of toasted bread and some tea; feels himself greatly better, but very weak.

5 P.M.—Continues free from spasm; no vomiting; slight headache; this not so urgent; pulse very much improved.

The patient cannot account for his present illness; was never similarly affected before. Is not a dissipated character; and the only malt liquor he took on the day previous to his attack was a pint of porter. Has been in the habit of drinking porter daily.

24 August, 1831.

I have the honour, in reply to your letter of the 2d instant, to state, with reference to the case of cholera-morbus that at the commencement of the disease the matters vomited and passed by stool were of a bilious nature, greenish brown colour; and that as the disease progressed, the matter vomited became of a clear colour, frothy, and seeming to contain a great proportion of mucus from its tenacious quality, without any admixture of bile.

As to the evacuations, they were all the time very watery, and of a high bilious nature; although, at the time saw the case, the desiccates go to stool was by no means urgent.

He states, as well as the person who attended on him from the commencement of the attack, that he did not make a wise glassful of urine during the day; and what he did void was of a deep brown colour. I inquired into this point before, but omitted making mention of it in my former letter.

I am happy to state, that the man is now perfectly recovered.

TWO CASES

VOMITING WITH CRAMP.

Apparently cured by Colapex Oil.

By R. MACLEOD, M.D.

Hentheta-Street, Cavendish-Square,
August 3, 1831.

This subject of cholera occupies so much attention, that facts and cases, in any

degree connected with it, and such as at another time might, perhaps, be deemed unimportant, excite sufficient interest to warrant their publication at the present moment. It is this feeling which induces me to give the following short account of two cases, which presented some peculiarity in the symptoms, and in which benefit was apparently derived from a remedy which has lately been asserted to prove efficacious in the more formidable disease of India.—I mean cajeput oil.

On Wednesday, August 3d, I was sent for, between seven and eight in the morning to Mrs. R. a rather delicate woman, about 30, the wife of a respectable tradesman in the neighbourhood of Cavendish-Square. She was in bed, and appeared to be very faint, her countenance being pale and anxious. She had just been sick; and on examining what she had brought up, I found it to consist of about a tea-cupful of transparent, colourless fluid, like water, except that it had some degree of viscosity. She complained of severe heavy pain across the brow, and of "stupidness." The skin was cool and perspiring; pulse 90, small, and soft; tongue clean; thirst urgent. On questioning her attendant, I found that she had been seized between three and four hours previously with the above symptoms, having several times vomited matters similar in appearance to those above mentioned. The bowels had been freely opened the preceding day by means of laxative pills, which she was in the habit of taking; and by her own account she had not committed any imprudence in diet to account for the attack. I ordered her fifteen drops of laudanum and double that quantity of spirit of sulphuric ether, in a little cinnamon water, to be taken immediately, and repeated in an hour, if the vomiting continued.

I had scarcely returned home when I was sent for again, in consequence of my patient having been seized with "spasms." More than half an hour elapsed before I was able to see her; she was then in a state approaching to syncope, and had just vomited half a pint of fluid, resembling the above, except that there was a perceptible shade of green in it. She said that she had felt a tingling in her feet, almost immediately after which she was attacked with cramp in the limbs and at the stomach. Her attendant

states that she was "hard and stiff all over." Her medicine had not been procured when the cramps came on. Thirty drops of laudanum, and a drachm of the spirit of sulphuric ether, were immediately given; and the first dose having been rejected, the medicine was repeated. The limbs and abdomen were diligently rubbed with soap liniment warmed, and with a sixth part of laudanum added to it; after which cloths, wrung out of very hot water, were applied to the abdomen. Half the quantity of the medicine was again exhibited at the end of an hour. She now enjoyed a respite from suffering, except that of great exhaustion, for about three hours, when the vomiting and cramps returned. The fit lasted for half an hour, during which time respiration seemed to be impeded, by the muscles about the chest participating in the cramp. The same dose of medicine was given as at first, and it was directed to be repeated in half the quantity on the least recurrence of the symptoms; and every two hours at all events. The frictions were renewed, and a sinapism applied to the pit of the stomach.

She continued to have slight returns of the cramps, with some vomiting, every two or three hours, but with increasing intervals, till next morning, when the medicine having been omitted, the symptoms returned with violence. She complained of being very chilly, and the skin felt cold and damp; the pulse being 80, and small. After the more severe attacks she lay exhausted, in a state bordering upon syncope. The medicines, and other treatment of the preceding day were vigorously resumed, but without the same result; and a very violent return of general cramp, with vomiting, having come on in the forenoon, I was induced to order twenty drops of cajeput oil to be taken instantly, in an ounce of cinnamon water, and repeated in an hour, if the vomiting or cramps returned. The medicine was retained, and the second dose taken—though the symptoms had not returned—apparently because the patient had liked the first. From this time she went on well; the vomiting was not renewed at all; and though she had some cramps, they were slight and partial in comparison to what had previously taken place.

She made water several times, but in very small quantity and high coloured,

during the first and second days. The bowels did not act until after the third day, when all the symptoms had been gone for twenty-four hours, and the effect was then produced by senna and salts. An enema administered the second day was returned without any alvine evacuation. The convalescence has been rapid and uninterrupted.

The servant of this patient was seized on the second day of her mistress's illness with nausea and cramps in the calves of the legs, which speedily yielded to calomel and opium, followed up by senna and salts. Two days previously two lads in the shop were sent home, having been attacked with vomiting and purging.

On Wednesday, the 3d of August, I was also requested to see Miss B——, a lady about thirty-five years of age, and rather stout. Three hours before I saw her she had been seized with vomiting, accompanied by cramp about the muscles of the abdomen and chest, so severe as to keep her in a bent posture, and at times to interfere seriously with respiration. The vomiting recurred about every half hour; the ejected resembled water, with a little mucus; there was not a vestige of bile. The countenance was shrunk and anxious; the skin cool; and the feet so cold that she had had hot water applied to them before I saw her:—the pulse 80, and small. She was so languid as scarcely to be able to answer questions, and the slightest movement instantly brought on vomiting and an aggravation of the cramps. I had attended this patient about ten days before for an attack of bilious vomiting and purging, with cramps of the lower extremities, which had speedily yielded to mild mercurials, preceded by moderate doses of tincture of opium and sulphuric æther; and on the second occasion, she had taken before I saw her, a draught, containing ℥xxv. of the former, and two fluid scruples of the latter, but without any relief having followed. She now had ℥xx. of cajeput oil in cinnamon water, with instructions to repeat it in an hour if necessary. As in the preceding case, both doses were taken, though no return either of cramp or vomiting had occurred; but the patient, finding it grateful in its effects, had begged for its repetition. She described the relief as being immediate. There was no return of her symptoms till late in the evening, when it

was attempted to move her to her bedroom: the exertion which this occasioned brought on slight sickness and a renewal of the cramps, and she remained all night on the sofa in her drawing-room, where she had been taken ill. In this case, also, the bowels had been open the preceding day, but remained without acting till the symptoms had been entirely subdued for twenty-four hours, when they were moved by means of rhubarb and magnesia. She acknowledged having eaten "a plumb and a half" the day before she was taken ill.

These facts appear to shew that the cajeput oil has some power in allaying the kind of disturbance above described: whether it has more efficacy in this way than certain of the other volatile oils, remains to be proved. The cases related differ from what in this country we are accustomed to call cholera, inasmuch as there was no purging, and the matter vomited was not "bilious":—they differ from the Indio-Russian cholera in the absence of those symptoms of asphyxia which appear to constitute the chief peculiarity of that deadly and perplexing disease.

REJOINDER OF "M. D." TO DR. GREGORY.

To the Editor of the London Medical Gazette.

Wednesday, August 10, 1831.

SIR,

I HAVE to thank you for the promptness and the impartiality with which you have hitherto given admission to my communications into your instructive pages. Allow me, now, to trespass on you (and it shall be but for a moment) with a very few words, rather as a running commentary on the *dieta*, than in reply to the magnanimous challenge of Dr. Gregory, contained in your last number; which, by the way, from some unexplained delay in town, has only just reached me.

I am glad that Dr. G. has found me "indefatigable" in the defence of integrity and truth: but he mistakes me much when he either thinks or calls me his "enemy." Indeed, had he "profited" by my former "good advice," he ought, long ere this, to have num-

bored me on the list of his best friends. I regret, on his account, that he has allowed himself to lose his temper somewhat: this has led him to speak with no little asperity of what he is pleased to call my "facts" and arguments. The facts I have brought forward are not mine: they belong to "history;" and require not the additional blazonry of a name. Of the propriety and cogency of my arguments I entertain no fear: both are before the tribunal of the medical public, to whose decision Dr. Gregory and I must alike submit. I would not willingly lay to the charge of Dr. G. or any other "trusty brother of the trade," even the slightest tendency towards the *mala fides auctorum*; but this I feel warranted to say, that his premises are, too often, ill founded or incorrect; and his conclusions illegitimate or inconsequential.

In complaining of my *incognito*, Dr. Gregory dares me to descend into the arena of controversy, and break a lance with him. With such a "redoubtable" champion even defeat might, perhaps, be not altogether inglorious to me; but I have long since hung up my arms in the temple of peace; and hate, besides, a perfect horror of the *odium medicum*. It is, therefore, not at all likely that he and I can ever come into professional conflict. Should we, however, at any future hour enter the lists, *proprie personis*, he shall find me "with my vizor up," yet armed *cap-à-pie*. On the present occasion, however, with entire good feeling towards him, and the most grateful regards to you, I take leave to continue my accustomed signature, and remain, sir,

Your very obedient servant,
M.D. Oxon.

MEDICAL GAZETTE.

Saturday, August 13, 1831.

"Licet omnibus, licet etiam mihi, dignitatem Artis Medicæ tueri; potestas modo veniendi in publicum aut, disendi periculum non recuso."—CICERO.

FRENCH EXPERIMENTALISTS ON CHOLERA.

Of a truth the French are the most indefatigable and hot-headed advocates in

the world; whether they take up a question of politics, religion, or medicine, it matters not—they carry on the war of discussion with all the imposing earnestness of inquirers after truth, combined with an unaccountable quantity of the zeal of fiery partisans. The problem of contagion or non-contagion in cholera is now the prominent question among them, and it seems to engross fully an equal share of the public notice with the inquiry into the best method of treating that appalling disease.

We have before us a whole pile of French documents, in the shape of letters and communications on cholera, addressed to government, to the public, and to private individuals; and as the writers of those documents are all medical men, we should naturally expect to add to our stock of knowledge of the malady by their perusal. This, however, proves rather to be reckoning without our host: with a very few exceptions, the mass of the correspondence to which we allude is good for nothing: it generally begins with a pompous opening, is carried on with a laborious effort at importance, but invariably concludes with some mountain-begotten mouse for its upshot. Here, for example, is a serious epistle on cholera, just presented to the medical world, by a Parisian physician:—

"Sir,—An illustrious Spawiard, Don Callos, a medical man and citizen of the world, who spent one half his life in England, and the other in traversing the various regions of the globe, happening to be in Paris a few days ago, was greatly astonished at the fears entertained of cholera morbus in this capital. He had been often in places where this dreadful complaint raged epidemically, and being a profound observer, devoted much of his attention to the peculiarities which it presented in its mode of invasion and progress, which he thought was even more important than the method of cure. And the result of his observation was this—that cholera always spares a cer-

tain number of persons, and of these invariably are those individuals who have—the sick! For which reason he considers the sick to be a certain preservative against the cholera, which threatens to lay waste the west and south of Europe, in spite of all the quarantines, lazarettos, and cordons, that can be opposed to it.

Theoretically speaking, sir, I should be disposed to embrace the opinion of Don Callos for the periodical eruption throwing the external tegumentary apparatus into a state of permanent excitement, &c. &c. is peculiarly adapted to obviate the tendency of innervation in which the essence of cholera seems to consist, and to know what to do.

But, sir, the very notion of such a remedy is, I must confess enough to inspire a repugnance against its adoption. Suppose we have a young beautiful and amiable lady, fine patient, and one who every evening dresses herself in attraction of a brilliant complexion, should we propose to her to exchange her fair and soft complexion for the hideous aspect of a pimple, the very name of which shews the blood of a people of fashion? Here is the difficulty; yet if the remedy be specific, there can be no balancing of opinion; it must be adopted. Here an eloquent contrast is drawn between cholera and the sick, after which the writer concludes by saying that the disease continued to extend its ravages, it is surely the duty of government to put to the test the observation of the learned Spaniard—and it can be readily done through the medical commissions now in operation in Poland and Russia. At all events, I feel that I should have been wanting in my duty to the medical public, had I concealed from them the fact of Don Callos's experience. Whence, therefore, &c. &c.

How characteristic is the gallant Frenchman's horror at the idea of proposing as a remedy even though his fair patient be threatened by the fell destroyer, and the cutaneous eruption be a specific! But there is nothing more true than what Sterne says of the nation—that they are the most serious people under the sun.

Let us take another example of the national feeling exemplified in that

sovereign on the subject which prompted Desgenettes and Gattary to the hazarding of their lives for the glory of attempting to establish their opinion.

A. M. Ollivier, a physician of Paris, writes as follows to the Minister of the Interior:—

"Sir, Amid the many important questions which at this moment fix the attention of Europe, there is one which above all others is of an overwhelming interest—cholera, that frightful disease which day after day is extending its ravages farther and farther, and menaces with destruction the nations of the west. How is its progress to be arrested? What barrier is to be opposed to it? Cordons and quarantines have been established by many governments, even to the distressful inconvenience of the people they govern. But with all due approbation of their zeal for the public safety, may we not be permitted to ask, how far such measures are calculated to check the progress of the scourge? Experience hitherto seems not to warrant much trust in their usefulness. What, then, is to be done? Why, assuredly, to ascertain whether we are proceeding by the right method; whether our system is well founded; in short, whether cholera is a contagious disease, from which we may be preserved by cordons, lazarettos, by quarantines, and lazarettos, or whether it be not the result of an epidemic constitution. This weighty question once decided, we shall at least have gained one step towards our protection from the new and awful calamity.

Much light, no doubt, will be thrown on the grand problem of the contagion or non-contagion of cholera, by the labours of the numerous French and foreign physicians engaged on the actual theatre of the epidemic; but it is to be feared that it will not finally be set at rest through that quarter, except after the lapse of much time. It becomes, therefore, a matter of high importance to come at once to a positive conclusion by direct experiment, on a large scale, and beyond the interference of any thing epidemic, which can never be effected in situations where the disease prevails. Hence, it is the paramount interest of the proposition which I have the honour to make to you, and

to which I am persuaded you will grant all that attention which it merits.

Now, in order that the proposed experiments should be conclusive, they should be made far from those countries which are a prey to cholera: they should be on an extensive scale, and capable of being sufficiently varied; and, finally, they should be attested by the presence of persons of the highest credit, and who are beyond even the suspicion of prejudice.

The north-west extremity of France is, then, the very place where, with all due precaution for the public safety, a complete course of experiments might be tried; we might proceed there exactly as in a lazaretto devoted to the most contagious of diseases. From the several situations along the coast of the Baltic where cholera is to be found, various articles, such as the shirts, drawers, bed-clothes, &c. of the diseased, might be procured. The articles should be in the greatest state of impurity possible—regularly authenticated—hermetically sealed up—and shipped off with the utmost expedition to the place appointed (a steam-boat would be most available for this purpose); so that in a very few days after the death of certain assured victims of cholera, healthy men should be clothed in their garments—those garments which had been in immediate contact with the bodies of the deceased; and impregnated with more or less —, matter which should be also procured separately, for the purposes of the various experiments. Perhaps, too, it might be possible, in spite of the rapidity of the course of the disease, to import some of the sick themselves for experimental purposes.

I, for my part, am ready to expose myself the first to these experiments; and I am sure, there will not be wanting other physicians ready to submit to the same course, eager to sacrifice even their lives for the interests of science and humanity!

Thus neither materials nor subjects can be wanting; and it will only remain for government to express a desire that the experiments be performed.

If the individuals submitted to the experiments become seized with the complaint, while the whole surrounding country is free from it, and if the complaint remain confined to those individuals, in consequence of the preventive measures employed against its

spread, then may we conclude that cholera is transmissible, at least under certain circumstances and conditions. But if, on the other hand, the persons submitted to the experiments, &c. enjoy a perfect immunity, those will, of course, be sufficiently strong reasons for the inference that cholera is incommunicable, and is propagated in other ways than by contagion.

The theatre of the epidemic is, not the place for making those experiments which should clear the matter up. For let us suppose that Dr. Foy had been attacked with cholera after his inoculations, and other steps practised by him at Warsaw last month; why, no doubt, his malady would have been attributed to contagion, by the rule of *post hoc ergo propter hoc* whilst, in fact, it might have been no more than the common result of the epidemic influence to which the experimentalist, as well as all the other people of Warsaw, were exposed. And this was the very case with the unfortunate Valli, who, in September, 1816, fell a victim to yellow fever, at the Havana, after he had put on the shirt of a man who had just sunk under the complaint. It was looked upon at once as an incontrovertible proof of the contagiousness of yellow fever, without reflecting that thousands of individuals were attacked with it at the same place without having been in any way exposed to its pretended contagion.

In conclusion, sir—the result of the experiments which I have the honour to demand, must be interesting in the highest degree to the different nations of Europe. I would suggest the propriety of calling upon the governments, which are nearest to us, to appoint commissioners, who should take a personal part in the proceedings, note the exact details, and be eye-witnesses of the results, in case their testimony might afterwards be required.

The importance of my request, as it concerns the interests of science, commerce, and humanity, encourages me to hope that it will meet with a prompt reply.—I have the honour to be, with the greatest respect, &c. &c.

With all its high-sounding, chivalrous, bold announcement of self-devotion—hardening on the bravado or gasconade—this letter must be admitted to contain a considerable share of plausible truth. But the experiment—and the

place and the persons allotted for its due performance—these are the touchstone by which the propriety of its adoption should obviously be tried. *We* may look the more coolly at the proposal, because it is not the south-west or north-west corner of *our* island that is sought for the *locale* of the experimental pesthouse; but we can very well conceive the horror likely to be produced among the less enthusiastic, or the less informed portion of the French community, by the very notion of such perilous experiments. It may be observed, too, that M. Chervin says nothing in his letter of the alternative of the individuals becoming infected by the imported materials, and the *preventive measures* for isolating the disease proving *insufficient*. The following is the reply which M. Chervin received from the French government:—

Paris, July 20, 1881.

“ Sir,—I laid before the Superior Council of Health the letter which you did me the honour, &c.

The Council are of opinion that the experiment to which you offer to submit yourself could not be performed in this country under the existing law of the 3d March, 1822, which makes it punishable with death for any individual to expose himself to the contact of things or persons not admitted to free *pratiques*.

The Council add, that even though the government should deem it expedient to compromise the principle of the law, and to institute inquiries whether cholera is contagious or not, it could not possibly be by methods already formally condemned, where the infected articles, sent from the colonies for the purposes of experiment in yellow fever, were caused to be destroyed. They, moreover, cannot admit that it is justifiable by the laws of morality to hazard the lives of persons who, even voluntarily, come forward to submit to the experiments proposed.

I cannot but hold in the highest consideration these opinions of the Council; nor should I think it warrantable to neglect the precautions advised by them, for the preservation of France

from the cruel scourge of cholera. That scourge, most fortunately, has not yet crossed our barriers; and since it has no footing amongst us, there is a most decided impossibility that the experiments you propose should be conducted on French ground.

And as to other countries, I have nothing to say—nothing to recommend or to forbid.

I entertain a due sense of the generous feelings which dictated your proposal; and you will allow me, in conclusion, to assure you, &c. &c.

COUNT D'ARBOÛT,

Peer of France, &c.

To this communication Dr. Chervin has published a voluminous reply (which we do not intend to censure or applaud), commenting on every sentence of the minister's letter, and praying, in conclusion, for further attention to his proposals. M. Chervin may not be much to blame for putting in his rejoinder to a letter which dashed all his doughty determinations; but we really cannot see what more he could reasonably have expected, by way of answer to his project, than the polite apology contained in the above letter. In short, we fear that, were we the minister, so hare-brained a project, as we should take that of Chervin to be in the first instance, would not have come off with so much consideration from us, or without some small share of wholesome severity. But the man was *serious*, we have no doubt; and would have had, we firmly believe, no hesitation in undergoing the ordeal of his own choosing. We judge from the deeds of Desgenettes and Foy.

By the way, we have before us the latest letter of Dr. Foy from Warsaw. It contains rather a lengthy detail of the morbid anatomy of cholera, founded on the examination of twenty bodies of patients who had died purely of that disease. We do not, however, think it necessary to enter into the particulars, since we find that the appearances do not differ in the least material degree from the summary we gave of them in this jour-

nal lately, (Med. Gaz. No. 186); but we shall give M. Foy's postscript; it is worth preserving, though it has gone the round of many of the newspapers, French, English, and foreign:—"During the last five or six days the cholera has made frightful ravages at Warsaw. The plague could not have carried off its victims more suddenly. Within the short space of four or five hours patients are no more; and this whether in hospital or in their own houses. Two days since I lost an officer in my ward, in the course of five hours; and yesterday (July 18), during my visit, a patient who had been answering all my questions, died as suddenly as if he had been touched with hydrocyanic acid. We no longer know what to do, in the way of remedy, for so sudden and terrible a scourge."

PROGRESS OF CHOLERA.

Accounts from St. Petersburg were received in town on Tuesday night. They are considerably more favourable than those we gave last week. The number of deaths had perceptibly diminished; and the only fresh places at which it had broken out were two small towns of the Gulph of Finland. A curious and important fact is mentioned, namely, that no instance has occurred in which the disease has broken out, in any vessel, more than four days after it had put to sea.

REPORTS OF CASES OCCURRING AT PUBLIC INSTITUTIONS.

GUY'S HOSPITAL.

Diffused Aneurism in the posterior part of Right Leg—Operation, Gangrene, and Death of the Patient.

GEORGE CHARLES, aged 49, was admitted into Guy's Hospital on the 10th November, 1830, under Mr. Key, for a large diffused

aneurismal tumor in the calf of the right leg. The origin of it is very obscure, and the account the man gives exceedingly indistinct and imperfect. All that can be learned is, that while walking one afternoon, about five weeks before his admission, he felt for the first time pain and a sensation of numbness in the lower part of the calf: in a few days he perceived the foot and ankle to be swelled, which gradually increased and extended up the leg; this, however, was not sufficient to prevent his walking as usual, until a fortnight after the first occurrence of pain, when he was conscious of a sudden increase in the swelling, and particularly about the calf: since then he has been unable to walk, has suffered considerable pain, and thinks there has been pulsation in the tumor, but of this he cannot speak positively.

Previous to his coming to the hospital he had been seen by a practitioner, who, from the swelled and inflamed state of the limb, overlooked the aneurism, and supposed the disease to be erysipelas. Leeches in abundance were applied to the lower part of the leg, and purgative medicines given freely: by these means the inflammation was much reduced, as was also the man's general health. Two or three rigors having occurred, matter was thought to be forming.

When examined on admission, the aneurism was found to be of a very large size, commencing immediately below the knee, extending along the whole calf, and nearly encircling the limb. The tumor is very tense, and the integuments red and inflamed: most of the blood appears to be in a fluid state, as by pressure the size of it may be much reduced, and, when removed, it instantly refills; a pulsation synchronous with the arteries is plainly perceptible over the middle of it, but not nearly so distinct at the sides. The lower part of the leg and foot are very oedematous, and sensation is not very good in them. He is unable to bear upon the leg, lies with it in the bent position, and complains of much pain on the least attempt to move it. He is in ill health, strength much reduced, no appetite, tongue furred, pulse feeble and rather quick, but without any aneurismal thrill.

Cold lotion was ordered to the tumor, but in consequence of the leg and foot soon becoming cold, it was discontinued, and warm flannels applied to the foot.

11th.—1 P. M. The tumor increased in size since yesterday, is more distended and tense than then, and pulsation less evident. It being thought something should be done immediately, a consultation was held as to the propriety of amputating at once, or whether an attempt should be made to save the limb. It was a matter of considerable doubt if it were an aneurism of the lower part of the popliteal or of the posterior tibial artery: on the one hand, the situation of the tumor

seemed to point out the posterior sinus as the affected vessel, and on the other, the extreme rarity of spontaneous aneurism of that vessel, and the possibility that in this case the blood, contrary to what is usually found to take place, might have descended, inclined some rather to consider it as popliteal.

Independently of the doubt as to the affected vessel, it was considered an unfavourable case for tying the artery. In the first place, if the femoral artery were tied, the patient's low state, the largeness of the aneurism, and the swollen state of the limb, rendered it probable there would not be sufficient circulation to maintain the life of the leg. Secondly, if, instead of tying the femoral artery, the aneurism should be opened and the aneurism turned out, the difficulty there might be in securing the ruptured vessel, and if found to communicate with the posterior tibial, the deposition of that artery would render it extremely difficult, if not impracticable. Thirdly, if the affected vessel were secured so high, hardly to be expected that, reduced as the patient was, he would be able to support the enormous separation which must necessarily ensue.

In favour of tying the femoral artery, it was said, that by passing the ligature round it, as has been done in the thigh as would be, just as the vessel passes through the tendon of the adductor muscle, probably the supply of blood to the tumor would be cut off, or at any rate so much lessened, and the impetus of the blood so diminished, as not to prevent the cure; the branches being so small, while the adjoining branches would be sufficient to maintain a due circulation in the limb; the absorbents might then possibly remove the effused blood; and if this did not take place, the bulk of the tumor being much diminished, the consequences would not be greater than there would be. By adopting this plan, the only chance of saving the limb would be given; and if it did not succeed, recourse could then be had to amputation. It being determined to adopt the latter plan—that of tying the femoral artery low down, this was placed upon the operating table, and an incision made through the integuments, commencing about the middle of the thigh, at the outer edge of the sartorius, and running parallel to the fibres of this muscle, for three inches in length. The fascia was next divided, and the sartorius pulled to the inner side of the wound, when the sheath of the vessels was distinctly seen; this was next divided. The saphena nerve lay most superficial upon the vein which was immediately beneath it, and on the outer side of the vein was the artery. Two large branches were given off just as the artery passed through the tendon of the triceps; the ligature was placed round it directly above them, it being considered dangerous

any hemorrhage might occur if placed below them, unless the tendon of the muscle were divided, and this it was thought better avoided. In this case, the inner coats of the vessel were most distinctly seen to give way when the ligature was tightened. The wound was closed by a dossil of lint and straps of adhesive plaster. Scarcely any blood was lost during the operation.

10 P.M.—Immediately upon the vessel being secured the tenseness of the tumor was much diminished, and not the slightest pulsation could be felt. Pulse 104, and good; feet easier than before the operation, and says he has a sensation of tingling in the great toe. The distention of the tumor has rather increased since directly after the operation, but not to the same extent as before.

12th, A.M.—Has passed a good night—slept the greater part of it; tumor much the same; leg and foot warm, not quite so much swollen; pulse 120; tongue clean, no thirst; head free from pain; bowels not opened since the operation.

To take Magnesia Sulphatis, ℥ij. Li-
quoris Ammoniae Acetatis, ℥ss. Aq.
Menthae, ℥ss, statim.

P.M.—Has had two free evacuations. Pulse 116, fuller, and jerking. Foot and lower part of leg warm. There is a slight pulsation in the aneurism, the integuments over which are red and hot. To be kept wet with saturnine lotion. Still complains of pain in the limb.

13th, A.M.—Has not had much sleep, and has been rather delirious, continually talking. Passed four more motions. Pulse 124, small, and jerking; tongue a little furred; skin moist; thirsty; tumor much the same; leg and foot warm, and not so much swelled.

Noon.—Lotion to be discontinued, as the foot is becoming cold.

P.M.—Not much pain in leg; foot, and particularly about the ankle, cold; pulse 124, fuller, and rather sharp; skin hot and dry; tongue furred. There is a slight discharge of ill-conditioned matter from the wound in the thigh.

14th, A.M.—Has had some sleep, and feels better this morning. Pulse 112, sharp; tongue moist; but little pain in the leg; the tumor hot; the lower part of leg and foot are cold to the touch, though, he says, to him they feel warm.

To take Liq. Ammon. Acet. Aquam. Menthae.
Vin. aa. ℥ss. Magnesia Sulph. ℥ss.
ter die.

P.M.—Pulse 112; skin hot; tongue more furred, moist. Has had some beef-tea. There is a good deal of difference in the temperature of the tumor and the limb below it—the one communicates the sensation of heat; the other of cold; however, the man says he does not feel any difference

between them. Sensation, when touched, is not very acute.

15th, A.M.—Slept well; pulse 104, and feeble; no pain; lower part of leg and foot continue cold, and have a mottled, purplish colour. Warm water to be applied to the foot. Mr. Key thinks amputation should be performed to-morrow, if symptoms of gangrene increase.

5, P.M.—Seen by Sir Astley Cooper, who thinks the livid appearance arises rather from obstruction to the cutaneous circulation than from incipient gangrene, and wishes gentle friction to be used: even should mortification ensue, Sir A. Cooper thinks amputation had better not be performed, hoping it will not extend beyond the calf, and thus perhaps the knee-joint may be saved.

11, P.M.—Friction has been continually used without increasing the heat of the limb; there is but little sensation in the foot, and none in the great toe, at the end of which, and round the nail, there is a slight blackness, and on the leg there is a small vesication; bowels opened.

16th, A.M.—Has slept well; pulse 104, feeble; complains of feeling languid and faint; tongue moist; bowels opened; the leg has been rubbed the greater part of the night, and is rather warmer just now; still of a livid hue; he does not know when the foot is touched, unless pressed upon hard; a few more vesications have appeared upon the leg; the medicine to be discontinued, and to take gr. ij. of quinine, in some wine and water, directly.

P.M.—Feels rather better; plaster removed from the wound in thigh; pus ill-conditioned; a poultice to be supplied; tumor much the same; most of the blood in it continues in a fluid state; leg and foot much the same; friction to be continued; tongue dry and brown; skin hot; pulse 104, feeble.

Four ounces of wine daily.

17th.—Not much sleep; pulse 96, small and feeble; tongue rather better; the vesicles have given way, and serum is discharging from the surfaces underneath, to which cotton wool is applied; bowels open.

Wine increased to six ounces daily.

19th.—Sleeps pretty well; bowels open; pulse 100; tongue moist; foot and lower part of leg in much the same condition; aneurism not quite so tense, the integuments over it are thinner, and a more decided fluctuation may be perceived in it.

21st.—The leg is more decidedly gangrenous, has a fetid odour, a wrinkled appearance, and the cuticle is to a considerable extent separated from the cutis by a brownish coloured fluid; the foot is entirely without sensation; the gangrene does not extend quite up to the calf.

25th.—Not much difference; to have, in

addition to his wine, a pint of port, and twenty drops of tinct. opii at bed-time.

27th.—The action in the leg is more sensitive; he complains of pain in the foot, and that part of leg immediately above the gangrenous portion is a little inflamed; there is a great deal of ichorous, dark coloured, and excessively fetid discharge from the leg and foot; the ligature has not yet come off from the femoral artery; pus discharged from the wound healthy; pulse 100, and weak; hot water to the foot to be omitted, and the dose of opium to be increased to thirty-five drops of the tincture.

Dec. 2d.—The gangrene does not seem inclined to extend higher than the calf, where matter appears to be forming; he has complained of great pain in it in consequence of which a hemlock poultice has been used; last night he had a rigor, which lasted for some time; tongue brown; pulse 108, and continues weak; the sensation of fluctuation in the tumor is very evident, and no doubt can be entertained about matter being there. Twelve ounces of wine daily; ligature removed without any bleeding.

4th.—An opening has formed at the under part of the calf, directly above the gangrenous portion; this communicates with the tumor, from whence a large quantity of excessively fetid half-liquid blood, mixed with a small proportion of pus, flows; a distinct line of separation between the living and dead parts is now perceptible; pulse 104, small; tongue clean; wound in thigh slowly healing; the calf of the leg is lightly supported by means of strips of empl. sponios; the man complains of not being able to drink, his port to be omitted, and to have a pint of wine daily; the opium poultice to be discontinued, and a common one used.

8th.—The discharge from the calf is very great, and of the same kind, except that it is not quite so offensive; pulse 108, small; bowels opened; tongue moist; the separation of the dead lower part of the leg is going on slowly; the poultice to be discontinued, and a cloth wet with the solution of the chloride of lime used.

12th.—Pulse irritable; appetite not so good; bowels not opened; the irritation appearing to be greater since the poultice was discontinued, it was ordered to be used again; the discharge is not quite so copious, the contents of the calf being now evacuated, and the muscles and integuments left quite hollow. This evening he had a severe attack of vomiting, which was relieved by leeches.

20th.—Since last report he has continued much the same; the soft parts, which are dead, are nearly separated from the living; the skin is completely bare to a considerable extent; the tibia is partially covered, the integuments over it not having separated, abundance of ill-conditioned pus is discharged. Rubbing is made on the calf by

means of strips of plaster. Pulse 106; tongue moist; bowels opened. He is taking 35 drops of laudanum at bed-time, and a pint of wine with six ounces of brandy daily.

26th.—The wound in the thigh does not heal, and discharges a large quantity of ill-conditioned pus, some of which has burrowed into the ham, from whence it has been let out by puncture, and a poultice applied. The suppuration from the calf is also very considerable, and of an unhealthy character. The integument over the tibia, connecting the living and dead parts, is of the same size as it was a week ago, the system being apparently too much reduced to complete the process of separation.

Rx Quinine Sulphatis, gr. ij. 6ta. quaque hora sumend.

30th.—Large quantities of pus are discharged both from the wound in the thigh, and also from the calf; there is little alteration in his symptoms, and he gradually becomes weaker. From this time until the 16th of January, 1831, he continued progressively sinking, when he died completely exhausted by the excessive discharge and irritation, nature being unable to complete the separation of the gangrenous parts. On the 10th he was ordered, with some little temporary advantage, fifteen grains of musk, with ammonia, every four hours, and his dose of tr. opii was increased at bed-time to fifty minims. No permanent good was, however, gained by these remedies. No post-mortem examination was allowed.

In this as in the case of Bond, reported a short time since in the Gazette, the femoral artery was tied unusually low down in the thigh, and a fair opportunity afforded of judging of the comparative merits of the two situations proposed for passing a ligature round the artery; either to the inner side of the sartorius in the upper third of the thigh, the situation proposed by Scarpa, and now usually adopted; or on the outer margin of this muscle, immediately before the artery passes through the tendon of the triceps, as recommended a few years ago by Mr. Hutchison. Although the result in both these instances has been fatal, no argument can be drawn from them against the plan of tying the artery low down in the thigh, as little doubt can be entertained that the nature of the cases was such as would have rendered any operation, short of amputation, unavailing. In the one, a comminuted fracture of the tibia, extending into the knee-joint, and accompanied with considerable extravasation of blood; in the other, the patient's debilitated condition, the œdema of the leg, and the immense size of the aneurism, were such unfavourable circumstances, as hardly to leave nature the power of reparation.

In the case above reported, owing to the emaciated state of the patient, no great dif-

ficulty was found in passing a ligature round the artery; but in Bond, who was a very stout muscular man, the vessel lay at such a depth as to render the operation one of by no means easy performance. This must always occur to a greater or less extent, and forms a powerful reason in favour of securing the vessel in the upper third of the thigh, where it lies much more superficial, in ordinary cases of popliteal or femoral aneurism, where experience has shown that it is not absolutely necessary totally to prevent the flow of blood through the affected vessel to secure the obliteration of the sac. But in cases like the present, where the vessel has suddenly given way, or the escape of the blood had been occasioned by external violence, it is, of course, desirable to tie the artery as near as possible to the opening, that the flow of blood through that part of it may be the more effectually prevented; it being a well-known fact, that though an artery is obliterated for some distance below the ligature, it is by no means an unfrequent occurrence, when the ligature has been placed some distance above the aneurism, for the blood, by means of the anastomosing branches, again to enter the principal trunk, and thus pursue in part its usual course.

MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY.

Cases treated by Mr. Hamilton, under the superintendence of Dr. Stokes; with Mr. Hamilton's remarks.

Pneumonia, with Pleuritis—Danger of an over-dose of Tartar Emetic—Death.

SOPHIA COLLINS, *stat.* 30, stay-maker, of a lymphatic temperament, was taken into the hospital February 21st, 1831. Has been subject to slight dry cough ever since she had the measles in her childhood, aggravated occasionally by cold.

About three weeks since, during the heavy snow, she contracted sore throat, for which she was bled and blistered. After recovering from it she felt very weak, and was seized, about a week ago, with severe pain in the lower part of the left side of the chest, shooting up into the axilla. It was not preceded by shivering or other symptom, was worse on coughing or full inspiration, and at night, but does not appear to have been very tender. Along with this she had cough and expectoration, tinged with blood, and oppression of the chest.

At present the pain in the side is slight, occurring only in occasional stitches, but the cough is severe, with thin, frothy, watery sputa. Breathing hurried; pulse 135; tongue dry, and bright red; sweats at night, when she gets little sleep from coughing; appetite good.

On percussing the chest, the sound is less clear under the left clavicle; but no difference

can be perceived in the respiration under the two clavicles, where it is very loud. In the upper third of the left side posteriorly, the respiration is puerile; at the two lower thirds feeble, with occasional crepitating râles. The sound on percussion is dull. The same phenomena are observed at the inferior part of the right side posteriorly, but to a less extent. Resonance of the voice most distinct on the left.

Thursday, 24th.—Dulness on percussion less; crepitating râle on both sides inferiorly very distinct. In the seat of the pleuritic pain, on the left side of the chest laterally, respiration feeble, and sound dull nearly up to the axilla. Other symptoms much the same, only the expectoration being now tinged with dull red. There being no signs of any abdominal affection, she was ordered,

Antim. Tart. gr. vi. more solito. in die consumend. et Ijir. xii. regioni subcapularis sinistræ.

25th.—Yesterday, after dinner hour, took for the first time at once, two ounces of the tartar emet. mixture. Vomiting immediately followed, succeeded by distressing nausea; and, on every fit of coughing, a fresh inclination to vomit. After some time, griping and purging came on. She also experienced a severe pain, like cramp, at the pit of the stomach, lasting a few minutes, and recurring at short intervals during great part of the night, in which she got no sleep, but felt weak, languid, and chilly. Towards morning a shivering came on. When I saw her, at eight o'clock, she was still shivering; her skin cold and moist; pulse weak and fluttering, 162, or even more, being so quick as to be counted with difficulty; breathing short and hurried; complains of thirst; no pain of epigastrium, or tenderness.

Two hours after (at ten o'clock), the face was flushed; skin hot and dry; pulse fuller, but of the same character, and the other symptoms the same.

R Liquor. Acet. Opii, gt. xx.

Aquæ Cin. ʒi. statim. sumend. Omit. Tart. Emet.

26th.—Countenance natural. The breathing is much easier, and oppression less. Cough and expectoration diminished; pulse 142, soft, but not full. Yesterday, after taking the draught, felt composed. Heat of skin natural.

R Calomel. gr. j.

Pulv. Dov. gr. iiii. Fiant. Pil. xii. Sumat unam omni tertiâ horâ.

—Was griped and purged yesterday.

vil. et habeat potus mucilaginis limonum.

rhœoscopic examination Dr. said that she was better; the

crepitating râle being larger, and the respiratory murmur more audible.

March 1st.—Cough and breathing easier, but expectoration copious, of a white frothy mucus. Pulse 160, not so strong; tongue red and dry; purging still continues; slight epigastric tenderness.

Rep. Potus Mucilag.

2d.—Slept well during the night; purging, however, has not stopped, having had five motions yesterday, but without griping; pulse 140;

Vesicat. Abdomini. et injiciatur enema opiatum.

For a few inches at the lower part of the left lung posteriorly, the sound is dull and respiration scarcely audible; the sound then becomes clear, and a crepitating râle is heard, mixed with a good deal of the respiratory murmur. At the superior third, respiration puerile; at the lower part of right lung posteriorly, respiration feeble, with occasional crepitating râle, and sound dull.

3d.—Purging stopped; expectoration watery, mixed with dark-coloured blood.

Potus mucilag.

4th.—In a profuse perspiration; countenance improved; pulse 100, hard and full.

7th.—The patient's face looks flushed and anxious, and she occasionally answers questions vaguely. After speaking, a tremulous motion is observed in the lips. The pulse is small, rapid, weak, and fluttering; respiration 50. She complains of weakness, and great thirst; tongue red and moist; skin hot and dry; a small patch of redness exists about the eighth or ninth rib; another also on the buttock of the left side.

She has little cough, and does not complain of difficulty of breathing or pain anywhere, but asks if she is going to die. She raved during the night. Purging still continues; expectoration reddish-brown.

R Sulph. Quin. gr. ii.

Opii, gr. ss. ter in die. Vini, ʒiv. in die.

8th.—Countenance pale; excited; expectoration viscid, brought up with great difficulty; pulse weak, rapid, fluttering; two red patches are observed on the right side and buttock, of a dark purple colour; the breathing short and hurried, but does not complain of dyspnoea; she raved violently during the night, and asks repeatedly if she shall die; she is constantly dozing.

Beef-tea, et rep. alia.

11th.—Sunk, under a fresh access of diarrhoea; no postmortem examination allowed.

REMARKS.—If the former case presented a well-marked instance of simple acute pleu-

zitis, with effusion, we have here one of the same disease complicated with pneumonia, and which shews, in a striking manner, how much the danger and difficulty of the case is increased thereby.

Double pneumonia, complicated with pleuritis and effusion, occurring in a girl of a naturally bad constitution, and further debilitated by a recent illness, and the means employed for its relief, could only suggest a most unfavourable prognosis. Accordingly, Dr. Stokes, on feeling the great rapidity of the pulse, at once expressed his fears of an unfavourable result. The same opinion is also advanced by Andral, who states, that in pneumonia a pulse much above a hundred is generally a fatal sign.

But the great interest of the case consists in the fact, that to these unfavourable symptoms was added an accidental circumstance, which there can be little doubt served in a great measure to hasten her death: I mean the fatal mistake she made of taking too large a dose of tartar emetic.

In strong constitutions, much larger doses have been given at a time than the one taken by this girl, (which could scarcely have exceeded two grains) without any bad symptom. But in her the effects, as shewn by the report of the 25th, were most violent; great vomiting and purging, cramp in the stomach, depression of strength, cold sweats, &c. being the effects (though in a greater degree) described to be usually present in a case of poisoning from this medicine. Though the immediate danger was subdued by the means employed, the intestinal mucous membrane appears to have been left in a state of such irritability as to be ready from the least exciting cause to run into inflammation; and the calomel, though exhibited in very small doses, and combined with Dover's powder, seems to have been quite sufficient to produce this effect; as, soon after she had taken a few grains, griping and purging came on, which, though put a stop to for a time, eventually returned, and only terminated in death.

The case, therefore, though proving nothing against the utility of tartar emetic in pneumonia, yet by presenting a well-marked instance of the bad effects following a mistake in its use, strongly inculcates the necessity of caution, and is hence a case of considerable value to the student, as, indeed, any case must be which sets in a strong light the necessity of caution in the use of powerful remedies.

The remedy in question, though acting thus violently and malignantly on the stomach and intestines, appears from the examination on the 28th, to have acted beneficially on the lungs. It is much to be regretted that a postmortem examination could not be procured.

APOTHECARIES' HALL.

To the Editor of the London Medical Gazette.

SIR,

I AM instructed by the Court of Examiners to inform the Editors of the Medical Journals that the names of gentlemen to whom the Court grant certificates of qualification, on each day of examination, will in future be placed in the Beadle's Office on the following morning, and that each list of names will remain for public inspection (during office hours) for the space of one week.

I have honour to be, sir,

Your obedient servant,

JOHN WATSON.

Apothecaries' Hall,
August 4, 1831.

Names of Gentlemen to whom the Court of Examiners granted Certificates of Qualification on Thursday, August 4, 1831:—

John Bell.	Noah Philip Foley.
Chas. Hen. Devonshire.	David Hughes.
Thomas Alder Dixon.	John Allen Ramsey.

NOTICES.

Mr. King's letter to the Council of the London University can only be inserted as an advertisement.

A COUNTRY SURGEON.—After the completion of the present volume.

BOOKS RECEIVED FOR REVIEW.

Practical Observations on Prolapsus of the Rectum. By Frederick Salmon, F.R.C.S.

An Account of Inventions and Improvements in Surgical Instruments, made by John Weiss, 62, Strand; with a Selection of Cases wherein they have been successfully employed, and Testimonials of their utility from eminent Surgeons. Illustrated by numerous Engravings. Second edition, much enlarged.

Cholera Morbus.—A short and faithful Account of the History, Progress, Causes, Symptoms, and Treatment, of the Indian and Russian Cholera, taken from various authentic sources; with Cases as related by Practitioners in India; and also, the interesting Case lately given to the Public by Dr. Hamilton Roe, of the Westminster Hospital. By John Austin, Surgeon.

A Popular Treatise on the Teeth and Gums, and Diseases attendant on them: designed for the use of Families. By John Winckworth.

W. WILSON, Printer, 37, Skinner-Street, London.

THE
LONDON MEDICAL GAZETTE,

BEING A
WEEKLY JOURNAL

OF
Medicine and the Collateral Sciences.

SATURDAY, AUGUST 20, 1831.

SOME OBSERVATIONS

SUGGESTED BY

DR. PROUT'S LECTURES;

Addressed to the Editor of the London Medical Gazette.

By A. P. W. PHILIP, M.D. F.R.S. L. & E. & C.

SIR,

As the lectures of Dr. Prout were published in your journal, you will much oblige me by giving a place in that journal to the following observations. I may say with truth, that no man is more sensible to the merits of Dr. Prout than he who now addresses you. The ardour and success, indeed, with which he has applied himself to his favourite science, and the consequent authority which, in all subjects connected with it, his name possesses, are the causes of the present communication; for in proportion to these will be the effect of any error he may be betrayed into. If I am right in supposing him in error, it is error that arises from the love of a science which has enabled him to do so much.

To this partiality I ascribe the following observations in the eighth and ninth pages of his treatise:—

“Thus then, (to recapitulate briefly what has been said) we may consider chemistry to hold a sort of intermediate rank between anatomy, on the one hand, and metaphysics, or psychology, on the other; and by gradually *coalescing with both, to connect the whole, as it were, into one great system.* Of these extensive branches of knowledge, anatomy, from its obvious and mechanical nature, no less than from the great at-

tention that had been bestowed upon it, is by far the best understood, and scarcely a nerve or fibre, perhaps, remains that has not been again and again *demonstrated, as it were, that comparatively little remains to be done in it.* On the other hand, if we know little of the nature of living action, or psychology*, it has not been for want of inclination and attempts to investigate it, but simply from the nature of the subject, which, for the most part, is beyond our comprehension; while, if we turn to the vast and intermediate field, where by industry and perseverance almost every thing is within our power, we find comparatively little done, and very few working. How is this? What is the reason that so important and interesting a branch of knowledge should be so unaccountably neglected, and that our knowledge, in fact, respecting it is little farther advanced than it was twenty years ago.”

The questions which this passage suggests are, How far does chemistry fill the intermediate space between metaphysics, the science of mind, and anatomy, to which we owe a knowledge of the structure of the body? and, has in fact no advancement of any importance been made in this intermediate space during the last twenty years?

CHEMISTRY, so far from filling this intermediate space, occupies, I conceive, a portion of it only analogous to that

* It is remarkable that Dr. Prout here uses the word psychology as synonymous with living action, while in the foregoing sentence he uses it as synonymous with metaphysics. Is then the term living action synonymous with metaphysics? Can the laws, for example, of the living muscular fibre be with any propriety regarded as a branch of metaphysics?

tain number of persons; and of those invariably are those individuals who have—the itch! For which reason he considers the itch to be a certain preservative against the most dangerous which threatens to lay waste the west and south of Europe, in spite of all the quarantines, lazarettos, and cordons; that can be opposed to it.

Theoretically speaking, sir, I should be disposed to embrace the opinion of Don Callos for the sporadic eruption throwing the external tegumentary apparatus into a state of permanent excitement, &c. &c. It is peculiarly adapted to obviate the deficiency of innervation in which the essence of cholera seems to consist, &c. &c.

But, sir, the very notion of such a remedy is, I must confess, enough to inspire a repugnance against its adoption. Suppose we have a young and beautiful and amiable lady, fairly patient, and one who every evening reads the most attractive of all brilliant French novels—should we propose to her to exchange her fair and soft complexion for the hideous aspect of a pimple, the very name of which shudders the blood of people of fashion? Here is the difficulty; yet if the remedy be specific, there can be no balancing of opinion; it must be adopted. [Here an eloquent contrast is drawn between cholera and the itch, after which the writer concludes]—seeing that the disease continues to extend its ravages. It is surely the duty of government to put to the test the observation of the learned Spaniard—and it can be readily done through the medical commissions now in operation in Poland and Russia. As an example, I feel that I should have been writing in my duty to the medical public, had I concluded from the fact of Don Callos's experience. What, therefore, &c. &c.

How characteristic is the gallant Frenchman's horror at the idea of proposing as a remedy a remedy even though his fair patient be threatened by the fell destroyer, and the cutaneous eruption be a specific! But there is nothing more true than what Sterne says of the nation—that they are the most serious people under the sun.

Let us take another example of the national feeling, exemplified in that

sort of illustration which is attempted Desgenettes, and said to have been the hazarding of their lives for the glory of attempting to establish their opinions.

An illustrious physician of Paris, writes as follows to the Minister of the Interior:—

"Sir, Amid the many important questions which at this moment fix the attention of Europe, there is one which above all others is of an overwhelming interest—cholera, that frightful disease which day after day is extending its ravages farther and farther, and menaces with destruction the nations of the west! How is its progress to be arrested? What barrier is to be opposed to it? Cordons and quarantines have been established by many governments, even to the distressful inconvenience of the people they govern. But with all due approbation of their zeal for the public safety, may we not be permitted to ask, how far such measures are calculated to check the progress of the scourge? Experience hitherto seems not to warrant much trust in their usefulness. What, then, is to be done? Why, assuredly, to ascertain whether we are proceeding by the right method; whether our system is well founded; in short, whether cholera is a contagious disease, from which we may be preserved by cordons sanitaires, by quarantines, and lazarettos, or whether it be not the result of an epidemic constitution. This weighty question once decided, we shall, at least, have gained one step towards our protection from the new and awful calamity.

Much light, no doubt, will be thrown on the grand problem of the contagion or non-contagion of cholera, by the labours of the numerous French and foreign physicians engaged on the actual theatre of the epidemic; but it is to be feared that it will not finally be set at rest through that quarter, except after the lapse of much time. It becomes, therefore, a matter of vital importance to come at once to a positive conclusion by direct experiment, on a large scale, and beyond the interference of any thing epidemic, which can never be affected in situations where the disease prevails. Hence, sir, the paramount interest of the proposition which I have the honour to make to you, and

to which I am persuaded you will grant all that attention which it merits.

Now, in order that the proposed experiments should be conclusive, they should be made far from those roundabout which are a prey to cholera: they should be on an extensive scale, and capable of being sufficiently varied; and, finally, they should be attested by the presence of persons of the highest credit, and who are beyond even the suspicion of prejudice.

The north-west extremity of France is, then, the very place where, with all due precaution for the public safety, a complete course of experiments might be tried; we might proceed there exactly as in a lazaretto devoted to the most contagious of diseases. From the several situations along the coast of the Baltic where cholera is to be found, various articles, such as the shirts, drawers, bed-clothes, &c. of the diseased, might be procured. The articles should be in the greatest state of impurity possible—regularly authenticated—hermetically sealed up—and shipped off with the utmost expedition to the place appointed (a steam-boat would be most available for this purpose); so that in a very few days after the death of certain assured victims of cholera, healthy men should be clothed in their garments—those garments which had been in immediate contact with the bodies of the deceased, and impregnated with more or less — matter which should be also procured separately, for the purposes of the various experiments. Perhaps, too, it might be possible, in spite of the rapidity of the course of the disease, to impart some of the sick themselves for experimental purposes.

I, for my part, am ready to expose myself the first to these experiments; and, I am sure, there will not be wanting other physicians ready to submit to the same course, eager to sacrifice even their lives for the interests of science and humanity!

Thus neither materials nor subjects can be wanting; and it will only remain for government to express a desire that the experiments be performed.

If the individuals submitted to the experiments become seized with the complaint, while the whole surrounding county is free from it, and if the complaint remain confined to those individuals, in consequence of the preventive measures employed against its

spread, then may we conclude, that cholera is transmissible, at least, under certain circumstances and conditions. But if, on the other hand, the persons submitted to the experiments, &c. enjoy a perfect immunity, there will, of course, be sufficiently strong reasons for the inference that cholera is incommunicable, and is propagated in other ways than by contagion.

The theatre of the epidemic is not the place for making those experiments which should clear the matter up. For let us suppose that Dr. Roy had been attacked with cholera after his inoculations, and other steps practised by him at Warsaw last month; why, no doubt, his malady would have been attributed to contagion, by the rule of *post hoc ergo propter hoc*; whilst, in fact, it might have been no more than the common result of the epidemic influence to which the experimentalist, as well as all the other people of Warsaw, were exposed. And this was the very case with the unfortunate Valli, who, in September, 1816, fell a victim to yellow fever, at the Havana, after he had put on the shirt of a man who had just sunk under the complaint. It was looked upon at once as an incontestable proof of the contagiousness of yellow fever, without reflecting that thousands of individuals were attacked with it at the same place without having been in any way exposed to its pretended contagion.

In conclusion, sir, as the result of the experiments which I have the honour to demand, must be interesting in the highest degree to the different nations of Europe, it would suggest the propriety of calling upon the governments, which are nearest to us, for appointing commissioners, who should take a personal part in the proceedings, note the exact details, and be eye-witnesses of the results, in case their testimony might afterwards be required.

The importance of my request, as it concerns the interests of science, commerce, and humanity, encourages me to hope that it will meet with a prompt reply.—I have the honour to be, with the greatest respect, &c. &c.

With all its high-sounding, ghastly, bold announcements of self-devotion—bordering on the bravado or gasconade—this letter must be admitted to contain a considerable share of plausible truth. But the experiment—and the

vital organ, the most formidable disease is established. We relieve the distended vessels from that part of the blood which causes their morbid distention, and the whole of this series of changes is reversed; the vessels regaining their usual capacity, and with it their usual activity, the secretions of the part are restored. The cause of nervous irritation in the part is removed; and in consequence of the same sympathy which caused the evil to spread to every part of the system, it is now in every part relieved, and the various secreting organs resuming their usual functions, health is restored.

In the whole of this process, no doubt, many and varied chemical changes are effected, some of which we can detect, and all of which we should be glad to know; but the most important knowledge here is, that the lessening the quantity of blood in the distended part will restore that part, and through it the whole system, to a state of health, and thus a process be terminated, which would otherwise have terminated in death. I therefore conceive, that here the laws by which the increased quantity of blood in the vessels, however occasioned, is capable of producing the effects just detailed, and on which the relief obtained by lessening it depends, are those which chiefly demand the attention of the physician.

When I said that Dr. Prout, in his attempts to apply chemical principles to the improvement of pathology has, as far as I can judge, already been led into error, I referred to his observations on diet. That there is an affection of the digestive organs in which a diet similar to that which he recommends, with the exception of the frying with oil or butter, is the best, I admit; but this is not the usual state of these organs in indigestion.

I have been at much pains, in the last edition of my treatise on that disease, to point out two species of it which, notwithstanding the similarity of their symptoms, are diseases of a very different nature. It appears from many experiments, the accuracy of which have now been generally admitted, that the power of secreting surfaces so directly depends on the influence conveyed by the nerves, that it is immediately deranged if any considerable portion of this influence be withdrawn. Thus it is that failure of nervous power is not an unfrequent

cause of indigestion; and a failure of the digestive functions is often among the most prominent and distressing consequence of the impaired powers of the nervous system; but the indigestion caused in this way is of a very different nature from the more common form of the disease, arising from causes of injury existing in the stomach itself or the organs immediately connected with it; although some attention, both to the symptoms and history of these cases, is required to enable us to distinguish them.

In both, various symptoms, indicating disorder in the functions of the nervous system, as well as in the digestive organs, attend; but in the one, the indigestion being only symptomatic, only to a limited extent influences the nervous symptoms; while in the other, being the original disease, the nervous symptoms wholly depend upon it, and abate in proportion as the due functions of the digestive organs are restored.

These cases, although often confounded, require, as may be inferred from the difference of their nature, very different plans of treatment; and I feel no hesitation in saying, that according to my experience of indigestion, it is to the former case alone that the rules of diet laid down by Dr. Prout are at all applicable. In the latter, by far the most frequent species of indigestion, I have found that food reduced to a state of pulp by such processes as those recommended in the 15th page of Dr. Prout's Treatise, is oppressive, and of difficult digestion*, while beef, and still more generally mutton, moderately boiled or roasted, which he regards as so indigestible, I have, according to the report of at least many hundred patients, almost always found to be the food of most easy digestion.

* "And here," Dr. Prout observes, "It may not, perhaps, be amiss to make a few remarks on what is termed French cookery, in opposition to that generally employed in this country. In France, most substances are exposed, through the medium of oil or butter, to a temperature of at least 600°, by the operation of frying or some analogous process. They are then introduced into a macerating vessel with a little water, and kept for several hours at a temperature far below the boiling point, not perhaps higher than 180°; and by these united processes, properly conducted, the most refractory articles, whether of animal or vegetable origin, are reduced more or less to the state of pulp, and admirably adapted for the farther action of the stomach." Dr. Prout here seems to take for granted, that reducing food to a state of pulp renders it more digestible. With the exception mentioned in the text, my experience is directly in opposition to this maxim.

The cause of soft and pulpy food being often the most grateful when the indigestion proceeds, not from causes acting on the digestive organs, but a diseased state of their nerves, is, I believe, not that such food is most easy of digestion, but that the state of the nerves of the stomach in such cases rendering them morbidly irritable, the soothing effect of pulpy food is grateful to them, while they are unable to bear the more stimulating properties of the more simple food.

Were it not that it would lead into too long a discussion in such a communication as the present, I could illustrate and confirm these remarks by many observations made both on the dyspeptic and the healthy stomach, and particularly relating to the cases in which great anxiety, or long and severe study, had weakened the nerves, and brought those of the stomach into so irritable a state that it was difficult to find any species of aliment they could bear.

I have seen, in a case where much study and a sedentary life had injured the nervous system, the nerves of the stomach so irritable that they could bear only vegetable food, reduced to a soft and mucilaginous state; yet it is notorious, that vegetable is less easy of digestion than animal food; and with such difficulty was the food digested in the case I refer to, that after many trials the patient found it necessary to allow twenty-four hours for the digestion of each meal. He ate only at an early dinner hour.

Unless the distinction just pointed out be carefully kept in view, we shall constantly err in applying our rules of diet to individual cases. It is also to be observed that I speak here of extreme cases. In many cases we find the two species of the disease combined, causes deranging the digestive organs, and weakening the nervous system, having conspired to produce the disease; the cause of a great deal of the variety observed in indigestion, which tends at first view to give its symptoms so anomalous a character as almost to make us despair of reducing them to any principle of arrangement.

My experience is equally at variance with Dr. Prout's deductions from his experiments respecting sugar, oil, butter, &c.

With respect to sugar, it is remarkable that some dyspeptics cannot take the smallest quantity, whether crystal-

lized or not, with impunity. They find it necessary to abstain even from the most moderate use of it in tea. Some have inferred from this that sugar is always prejudicial in indigestion: I have not found it so. Many dyspeptics can take it in the usual way, and some very freely, without injury. These differences seem to depend on peculiarity of constitution alone, for we constantly find that both articles of diet and medicine which agree well with one patient, disagree with another, even when the cases are of the same nature. But when sugar has been used, the most refined crystallized sugar has been found lighter than either molasses or soft sugar; and I have known a lump of refined sugar eaten alone act as a grateful stimulus to the stomach, and tend to remove a sense of oppression, so that it has been habitually used by the patient for this purpose, and that without the least injury; its stimulating effect, by promoting the action of the stomach, more than compensating for any additional power of digestion, it required. This is an effect inexplicable on mere chemical principles, but one of great consequence in estimating the dietetic qualities of the sugar.

Of the effects of oil, our opportunities of judging in this country are very limited. One of a highly dyspeptic family under my care, having passed some time in Italy, introduced into his family the use of olive oil instead of butter. All its members made the change, and they all told me they found the oil lighter than the butter. One of this family many years afterwards having come into a very different state of health, found the oil now disagree with him.

Such facts, it will be admitted, set at defiance all chemical analysis. Would not oil eaten with bread disagree with the stomach of most people in this country, were it for no other reason than the disgust it would occasion? Is not the food, *cet. par.* which pleases the palate better digested than that which disgusts it? can any chemical process explain to us why this is so? It may be useful on many accounts to determine the composition of the food which best agrees with the stomach, but we have no other way of discovering what that food is but by observing its effects on the stomach itself.

I come now to the last of the two questions I proposed to consider. Has,

in fact, no advancement of physiological knowledge been made during the last twenty years? It was my intention, in the following part of this paper, to enumerate all the facts relating to the science of animal life which have been determined during that period; but I find, on reviewing the subject, that this would swell the present communication to too great a size. I shall therefore confine myself to those facts, the confirmation of which have come under my own observation. All the experiments by which they were ascertained were frequently repeated in the presence of men well qualified to judge of the results, and many of them in different parts of the continent as well as in this country; nor has there occurred an instance, since their first publication, of any of the results having been found to be erroneous.

It appears from the experiments here referred to,

THAT the opinion of Haller, respecting the power of the muscular fibre, (that it is independent of the nervous system,) is correct; it having been proved experimentally that the influence of this system, in its effect on the muscular fibre, resembles the effect of all other agents capable of exciting it. It tends to exhaust, not to maintain, its excitability*.

That the power both of the heart and vessels of circulation is independent both of the brain and spinal marrow†.

That the nervous power is capable of acting as a stimulus both to the heart and vessels of circulation‡.

That the nervous power is capable of acting as a sedative both to the heart and vessels of circulation, even to such a degree as instantly to destroy their power§.

That the proof of the vessels of circulation possessing a principle of motion independent of their elasticity, which bears the same relation to the nervous system with the excitability of the heart, not only, we shall find, as far as respects the kind of influence which they derive from that system, and the

way in which it is supplied to them, but also as far as respects the purposes for which it is bestowed on them, affords a strong argument for believing that this power is of the same nature with that of the heart*.

That the laws of the excitability of the sensorial and muscular systems are very different; those of the former being uniform excitement always followed by proportional exhaustion, those of the latter interrupted excitement, only when excessive, followed by any degree of the same state†.

That the sedative is not the effect of excess of the stimulant effect, but, like excitement itself, the direct operation of the agent‡.

That there is no agent capable of affecting the living solid that does not in small quantity produce more or less of the stimulating effect, and none that in greater quantity does not produce the sedative effect; but the degree in which agents possess each of these qualities which in different agents bear no proportion to each other, admits of infinite variety§.

That the power of the muscles of voluntary motion, like that of the heart and blood-vessels, is independent of the brain and spinal marrow, the nervous power influencing them in no other way than stimulants and sedatives do¶.

THAT the manner in which the muscles of voluntary and involuntary motion are subjected to the influence of the nervous system is essentially different, the former being subject to the influence of no part of the brain or spinal marrow, except the small portions from which the nerves of the particular muscles arise, while each of the muscles of involuntary motion is subjected to the influence of every part of these organs¶. Hence it is that neither mechanical nor chemical agents acting on the brain influence the muscles of voluntary motion, unless they are applied near the base of this organ, and that these muscles may be excited by stimulants applied to very minute parts of it;

* My Experimental Inquiry into the Laws of the Vital Functions, 3d Edit. Exper. 84, 85.

† Philosophical Transactions for 1815. Exp. Inq. Exper. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.

‡ Phil. Trans. for 1815. Experimental Inquiry, Exper. 13, 14, 15, 16, 17, 18, 26, 29, 30, 31.

§ Phil. Trans. for 1816. Experimental Inquiry, Exp. 16, 17, 18, 19, 20, 23, 24, 25, 29, 30, 31, 32, 33.

• Experimental Inquiry, Part 2, Chap. 1 and 2; also Exp. 43, 48, 49, 53, 59, 60, 61. This inference is further strengthened by facts stated in a paper I had the honour to present to the Royal Society about two months ago.

† Experimental Inquiry, Chap. 12.

‡ Ib. Chap. 4 and Chap. 12.

§ Annals of Philosophy for 1818. Experimental Inquiry, Chap. 12.

¶ Experimental Inquiry, Exp. 24, 35.

¶ Ib. Exp. 36, 37, 38, 39, 40, 41, 42, 43, 44.

while both mechanical and chemical stimulants applied to any considerable part of the brain or cerebellum, influence the heart, which cannot be sensibly influenced by any stimulant applied to a minute part of either of them*.

That the influence of agents applied to the brain on the heart and muscles of voluntary motion, also differ in the following respects:—Mechanical agents acting on the brain are better fitted to excite the muscles of voluntary motion, and chemical agents the heart†. The heart obeys a much less powerful agent applied to the brain than the muscles of voluntary motion do‡. While stimulants acting on the brain excite irregular action in the muscles of voluntary motion, they never have this effect on the heart, but simply increase the force and frequency of its contractions, nor is its action rendered irregular by sedatives acting on the brain, except they be of great power§. The excitement of the muscles of voluntary motion takes place chiefly at the moment at which the stimulant is applied to the brain, while that of the heart may generally be perceived as long as the stimulant is applied||. In the process of dying, after all stimulants applied to the brain fail to excite the muscles of voluntary motion, both mechanical and chemical stimulants so applied still excite the heart¶. All the foregoing differences in the effects of agents, applied to the brain, on the heart and muscles of voluntary motion, are referrible to the following law:—That the heart is excited by all stimulants, even the weakest, when applied to a sufficiently extensive part of the brain, while the muscles of voluntary motion are only excited by intense stimulants applied to certain small parts of it**.

THAT the secreting, and other assimilating processes, continue after the removal of the sensorial power††.

That the function of secretion is destroyed by cutting out a part of the nerves of the secreting organ, or by di-

viding them, and turning back the divided ends*.

That it may be restored when thus destroyed by subjecting the secreting organ to the influence of the voltaic pile, by which, as far as we can see, it is enabled to perform its function as perfectly as when it received the influence of the brain and spinal marrow through the nerves†.

That all the other functions which preserve the healthy structure in like manner depend on the influence of the brain and spinal marrow conveyed by the nerves, and are destroyed by interrupting this influence by the means just pointed out, the part rapidly becoming disorganized‡.

That this effect is wholly obviated if the influence of the voltaic pile be substituted for that of the brain and spinal marrow as soon as the nerves are divided, the structure of the part remaining perfect§. The delay of even a very short time in the application of the galvanic influence, will cause more or less derangement of the structure of the part.

That secretion and the other assimilating functions of the part although deranged, are not destroyed by simply dividing the nerves, if the divided ends are not displaced, even although they may have retracted for above a quarter of an inch from each other, the nervous influence still passing from the one divided end to the other||.

That destroying any considerable part either of the brain or spinal marrow, deranges the secreting and other assimilating powers. The destruction of one-half of the spinal marrow deranges the secreting power nearly as much as

* Experimental Inquiry, Exp. 36, 37, 38, 39, 40, 41, 42, 43, 44.

† Ib. Exp. 36, 37, 38, 39, 40, 41, 42.

‡ Ib. Exp. 38, 39, 40.

§ Ib. Exp. 32, 43, and others.

|| Ib. Exp. 44, &c.

¶ Ib. Exper. 41.

** Ib. Chap. 4.

†† Ib. Exp. 65, 66, 67, 68, 69, 70.

* Philosophical Transactions for 1822 and 1823. Experimental Inquiry, Exp. 48, 49; also p. 227 et seq. 3d Edit.

† The London Medical and Physical Journal for May 1820, vol. xliii. p. 365.

Philos. Trans. for 1822, 1823, and 1829.

De l'Influence du Systeme Nerveux sur la Digestion Stomacale, par MM. Brechet, D.M.P. chef de Travaux Anatomiques de la Faculté de Médecine de Paris, &c. H. Milne Edwards, D.M.P. et Vavascur, D.M.P. (Mémoire lu à la Société Philomathic, le 2 Aout, 1823; Extract des Archives Generales de Médecine, Aout 1823.)

Experimental Inquiry, Exper. 75, 76, 77, 78.

‡ Philosophical Transactions for 1827. Experimental Inquiry, Exp. 48, 49, &c.

§ Philosophical Transactions for 1822 and 1823.

|| Philosophical Transactions for 1822.

¶ Experimental Inquiry, Exper. 78.

De l'Influence du Systeme nerveux, &c. Par MM. Brechet, Milne Edwards, Vavascur, &c.

dividing and displacing the eighth pair of nerves*.

That simply dividing the spinal marrow does not derange the secreting and other assimilating power†.

The facts referred to in the preceding paragraphs throw light on the symptoms of diseases of the spine, and have suggested considerable improvements in their treatment‡. The same may be said of certain diseases of the stomach and lungs§.

THAT the peristaltic motions of the stomach and intestines are independent of the nervous system, though influenced through it||.

That the food when received into the stomach remains at rest in the central part of this organ, and unmixed with the food which still remains from the last meal; and is changed as it approaches the surface of the stomach, in consequence of that previously there being moved on towards the pylorus¶.

That the food is most mixed with the fluids of the stomach, and the greatest change is effected in it, in the large end of the stomach, the food being less moist, and of more uniform consistence, in the small end**. That the efforts to vomit, occasioned by the division of the eighth pair of nerves, arise from undigested food coming into contact with the surface of the stomach, no longer covered with its proper fluids††.

That the muscular power of the stomach remains after the division of the eighth pair of nerves, and the displacement of their divided ends; by which all that part of the food which has undergone the action of the gastric juice, and is consequently fitted to excite the proper action of the stomach, is propelled into the duodenum, undigested food alone remaining in the stomach, if the

animal has lived from sixteen to twenty hours after the operation*.

That the stomach and lungs, like the sanguiferous system, are influenced by every part of the brain and spinal marrow†.

THAT the animal is still capable of maintaining to a certain degree its temperature above the surrounding medium after the removal of the sensorial power‡.

That the destruction of any considerable part of the spinal marrow lessens the temperature of the animal§.

That the galvanic influence occasions a disengagement of caloric from arterial blood, if it be subjected to this influence as soon as it leaves the vessels, but none if the blood has remained out of the vessels, even for two or three minutes||.

That there is no disengagement of gaseous fluid from arterial blood on its leaving the vessels¶.

That the galvanic influence occasions no disengagement of caloric from venous blood—that is, blood which has already undergone the action of the nervous influence, although subjected to it as soon as it leaves the vessels**.

THAT the brain and spinal marrow are the only sources of nervous power, the nerves, ganglions, and plexuses, being only channels of its transmission, and means of uniting the influence of different parts of these organs††; and that the laws of the two great classes of nerves, the ganglionic on the one hand, and the cerebral and spinal on the other, essentially differ; the latter being organs of sense and voluntary power; the former, in the strictest sense, vital organs‡‡.

That the influence of every part of the brain and spinal marrow is, through the ganglionic system of nerves, bestowed

* Experimental Inquiry, Exper. 58, 59, 60, 61.

† The paralysis of the lower part of the body, occasioned by its division, arises, not from any loss of power in the spinal marrow, but from the lower part of the body having its communication with the principal source of sensorial power destroyed. Experimental Inquiry, Exper. 62.

‡ My Treatise on Indigestion.

§ Philosophical Transactions for 1817 and 1827.

|| My Treatise on Indigestion, p. 382, et seq. 6th Edit.

¶ Philosophical Transactions for 1822 and 1823. Experimental Inquiry, Exper. 50, 51, and Chap. xii.

§ Experimental Inquiry, Exper. 53, 54, 56.

** Ib. Exper. 55, 56, &c.

†† Ib. Chap. 7.

* Philosophical Transactions, 1822 and 1823. Experimental Inquiry, Chap. 7.

† Ib. Exper. 48, 49, 58, 59, 60, 61.

‡ Ib. Exper. 68, 69, 70.

§ Experimental Inquiry, Exper. 50, 51, 60. It appears from the experiments of Mr. Brodie (Philosophical Transactions for 1812), that causes powerfully debilitating the functions of the brain greatly lessen the temperature.

|| Experimental Inquiry, Exper. 80, 81, 82, 83.

¶ Ib. Exper. 66.

** Ib. Exper. 84, 85.

†† Ib. Chap. 9.

‡‡ Ib. and Chap. 12, and the experiments there referred to.

ed on all parts directly or indirectly necessary to the function of secretion, and the other assimilating functions, the due performance of these functions requiring the united influence of all parts of both organs*. The position of the ganglions, and the distribution of their nerves, tend to confirm these results of experiment.

THAT the various functions of the living animal body may be divided into sensorial, nervous, and muscular†. The sensorial power, though chiefly, is not wholly confined to the brain, nor the nervous to the spinal marrow; both powers in a greater or less degree residing in both organs‡.

That what we call death is the removal of the sensorial power alone, the nervous and muscular powers still continuing§.

That in the function of respiration, the sensorial, nervous, and muscular powers co-operate||.

That it arises from the ceasing of respiration that the removal of the sensorial power is at length followed by the loss of the nervous and muscular powers¶.

That whatever be the cause of death, the functions cease in this order, unless the sensorial or nervous system be so impressed as instantly to destroy all the functions**.

SUCH are the immediate inferences from the experiments. By comparing them together we arrive at the following conclusions.

The circulation is supported equally by the power of the heart and blood vessels; and we have reason to believe that, in both, the power which supports it is a muscular power.

The power of the muscles, both of voluntary and involuntary motion, is independent of the nervous system, and depends on the organization of the muscular fibre itself. Both these sets of muscles are equally capable of being excited by the nervous power; but while this power is the sole stimulant to which the muscles of voluntary motion

are subjected, it acts only occasionally on the muscles of involuntary motion, which are excited in all their usual functions by stimulants, over which the will has no influence; for which reason, and because they are incapable of effecting an object desired, their action is involuntary. If we had had no wish to handle, the fingers would never have become subject to the will.

When the muscles of involuntary motion are excited by the nervous power, it is not applied to them in the same way as to the muscles of voluntary motion. The consequence of which, it appears from what has been said, is, that the muscles of voluntary motion are only excited by powerful stimulants, applied to the small parts of the brain and spinal marrow from which their nerves originate; while the muscles of involuntary motion are excited by all stimulants applied to any considerable portion of these organs.

The excitement of the muscles of involuntary motion in all their usual functions occasions no exhaustion in them, the muscular excitability not obeying the same laws with that of the sensorial organs, whose excitement is always followed by proportional exhaustion. The excitement of the muscles of involuntary motion seems to be rendered independent of the nervous power, because their functions require a more uniform excitement than could have been derived from this source; and they appear to be subjected to the influence of the whole brain and spinal marrow, because they are directly or indirectly subservient to the functions of secretion and the other assimilating processes, which require for their due performance the united influence of every part of these organs; for the nervous power, we have seen, is not supplied by the brain alone, the spinal marrow supplying a necessary part of it, and that independently of any operation of the brain on this organ.

In the secreting and other assimilating functions the sanguiferous system appears only to supply the fluids to be operated upon by the nervous power; and the disengagement of caloric which supports animal temperature, is also effected by the action of this power on the blood. Thus it is that those vital functions which depend on the secreting and other assimilating powers are immediately subjected to the nervous system; while those

* *Ib.* Exper. 48, 49, 58, 59, 61, 62.

† *Philosophical Transactions for 1829. Experimental Inquiry, Chap. 9, and the experiments there referred to.*

‡ *Ib.* Exper. 63.

§ *Philosophical Transactions for 1829. Experimental Inquiry, Exper. 64, 65, 66, 67, 68, 69, 70, 71.*

|| *Ib.* Chap. 11, and the experiments there related and referred to.

¶ *Ib.*
** *Ib.*

which depend on the muscular power alone are only indirectly subjected to it, the nervous power influencing them through the functions of respiration and the secreting and other assimilating processes.

Such is the relation which the nervous system bears to what may be called the circumference of the animal body, in contra-distinction to the sensorium, which may be justly regarded as its centre, to which that system bears a relation of equal importance; for it may be regarded as the means of connecting the organs of the sensorium with all other parts. In its power this system is independent of the sensorium, for we have seen it capable of all its functions after the sensorial power is withdrawn. It is still capable of exciting the muscles both of voluntary and involuntary motion, of causing an evolution of caloric from arterial blood, of forming from the blood the various secreted fluids, and maintaining all the other assimilating processes on which the healthy structure of every part depends. In all these functions, however, it is capable of being influenced by the sensorial power, constantly, in the excitement of the muscles of voluntary motion, occasionally in all the others. It therefore bears the same relation to the sensorial system which the muscles bear to it. As the muscular is independent of the nervous power, so is the nervous of the sensorial power. As the nervous influence all the muscular functions, those of the muscles of voluntary motion constantly, those of the muscles of involuntary motion occasionally; so the sensorial influence all the nervous functions, those of the cerebral and spinal nerves constantly, those of the ganglionic nerves occasionally. Thus all the functions of the nervous and muscular systems, by which we are connected with the world that surrounds us, are constantly subjected to the sensorial power; while the functions on which our life depends, with the exception of respiration, are only occasionally so, and under circumstances in which the will has no control. With this exception the latter are all functions of the nervous and muscular powers alone. To respiration the sensorial power also is necessary; and therefore the nervous and muscular powers never long survive the loss of the sensorial power.

The nervous power, which connects all the other powers of the living animal body, effects so many changes in it, and has so large a share in connecting it with the world around it, cannot, strictly speaking, be regarded as one of the vital powers of that body, but as an agent employed by them; because it has been proved by direct experiment that it is capable of existing independently of the mechanism of the part in which it resides, and therefore is not peculiar to that mechanism; and by the same means that all its functions may be performed by galvanism, made to operate in the same circumstances in which the nervous power operates.

When the whole of the phenomena here referred to are duly considered and compared, the inference appears to be unavoidable, that the nervous and galvanic powers are the same. I have made many attempts to influence the galvanoscope by the nervous power, but hitherto without success; which need not surprise us, as the electricity of electrical animals, although sufficiently powerful to benumb a horse, produces no effect on the most delicate electrometer.

The nervous and muscular functions, being the effects of inanimate agents acting on living parts, survive the sensorial functions, which are the effects of living parts acting on each other.

Hence we see why the two first set of functions bear so strong an analogy to the processes of inanimate nature, while in the sensorial functions we can trace no analogy of this kind.

Such are the results, with what appear to me the necessary inferences from them, of a very extensive set of experiments in which I was, as far as more active duties admitted, many years engaged. These results are capable of being illustrated by the labours of the chemist. He may point out the chemical changes which accompany and doubtless modify them, but it is impossible that he should ever add one to the number. The laws of the vital functions can only be determined by observing the phenomena of these functions themselves.

It appears from what has been said that by the powers of the nervous system the animal body is formed into a whole. Through this system the sensorial power operates, and all the vital powers either immediately depend upon the nervous system, or

come within the sphere of its influence. Hence results the sympathy which exists among the different parts of the living animal which more than any other principle of our frame influences the phenomena of disease. It is by this sympathy that an injury of any one part soon produces derangement of the whole, and that diseases of continuance are constantly changing their aspect, and becoming more complicated. One of the most important as well as difficult tasks of the physician is, to trace the effects of this sympathy, that he may be enabled to arrive at the origin of the evil; without which his plans of cure, however they may alleviate, can never be permanently successful; for the most prominent evil is not always the first in the chain, and if the original affection be overlooked, the same sympathy will sooner or later reproduce the same train of symptoms.

The brain and spinal marrow suffer from all affections in every part of the system, and as on their functions depend both the functions and the structure of every other part, long-continued irritation in any part, although not of a nature to produce serious consequences in the part itself, never fails more or less to affect the whole, and thus prepare the various organs to yield to causes that would have been resisted had they not, if I may use the expression, been habitually prepared for disease. Did the limits of this communication admit of it, I could illustrate what is here said by many cases in which the rapidity and fatal effects of the disease could only be accounted for on the principles I am here endeavouring to explain.

Nor is it necessary, in order to produce this general failure of the powers of the constitution, that the cause of irritation should be constant. A frequent recurrence of attacks, not in themselves of a formidable nature, are sufficient at length to produce the effect; and the friends of the patient are surprised to see a train of symptoms suddenly supervene which defy our art, in one whose frequent indispositions they had been accustomed to consider so trivial; and the surprise is the greater that in the intervals of the attacks there is often little to indicate the change that is gradually taking place. The fault rather consists in an increased tendency to disease, than disease itself. The patient's strength may be in some

degree impaired, his flesh in some degree reduced, or he may appear fuller and paler, having, in consequence of a failure of power in the organs of waste, acquired what is called unhealthy fat, but still he goes about and eats his victuals, and generally makes no complaint; yet a physician of experience will perceive that this is a state that cannot continue without becoming worse, although he may not be sufficiently aware of its nature to point out the remedy.

The two circumstances which most influence the progress of disease by sympathy are, that from the constitution of our frame some organs sympathise more than others, and that the sympathy is always most apt to affect a part weakened by other causes. Thus, peculiarity of constitution generally influences the progress of disease. Where there is a constitutional weakness of any part, that part is most liable to be affected by the diseases of other parts. It is also a point of great consequence to be attended to, that compound diseases, if I may use the expression, in which, by the power of sympathy, more than one organ has become affected, are of a more formidable nature, the severity of the symptoms being the same, than disease confined to one organ; for the affection of each tends to aggravate that of the other, and all causes of injury to either affect both: thus the chance of mischief is increased, and the greater the number of organs involved in the disease, the greater, for very evident reasons, is its tendency to spread farther.

A principal object of my Treatise on Indigestion was to illustrate the effects of the sympathy of which I am now speaking; but the plan of that work was too confined to permit me to enter on the subject in its full extent: and I last year took a more extended view of it in a Treatise on the Prevention of Organic Diseases; pointing out the application of the foregoing results, to explain the steps by which organic disease is often established, and the principles of the treatment by which a tendency to it may be counteracted; and even a certain degree of it often removed, especially in the organs most under the influence of medicine.

I shall close this paper by the following observation on the only kind of experiments by which the laws of the vital functions can be determined. We have

seen that death consists in the ceasing of the sensorial functions alone, and that they only indirectly contribute towards maintaining life through the medium of respiration. With the exception of respiration, then, all the vital functions continue for a certain time after what we call death, as we have seen ascertained by direct experiments; and their continuance may be much prolonged by inflating the lungs at intervals, so as to imitate respiration. Hence it is that most physiological experiments may be as well performed on the newly dead as on the living animal, and some with greater advantage. Of the experiments detailed in my *Experimental Inquiry*, about three-fourths were made on the newly dead animal. Thus a principal objection to such experiments is removed; and this is of the more consequence, because they generally require to be frequently repeated, to render the result certain.

PUERPERAL FEVER.

To the Editor of the London Medical Gazette.

SIR,

IN a former communication I attempted to point out the difference which exists between two diseases very generally confounded with each other, under the common term of puerperal fever. An idea is prevalent among medical practitioners that the only difference between the acute and subacute disease, or the typhoid and the inflammatory, is, that one occurs in women, whose constitutional powers are greater, whose circulation is more active and energetic, and who are of a more inflammatory diathesis than those who labour under the typhoid form; that they are not two diseases, but identically the same, modified only by the constitution of the patient, by her age, her previous modes of living, and all those causes which may render the circulation more or less vigorous and energetic. To this hypothesis there are, I think, insuperable objections; the acute form affects not unfrequently the weak and exhausted, and the strong and previously healthy constitution of the parturient female does not secure her from falling a victim to the typhoid variety of this fatal malady; nor in the latter case will the

antiphlogistic plan of treatment, nor the firmest credence of its inflammatory nature, prove a *saving faith* with respect to our patients. The diagnosis is in most instances, though not easy, yet by no means impossible; the former or acute inflammation of the uterus and contiguous structures is generally sporadic; the latter (to which, perhaps, the term puerperal fever should be confined) generally occurs successively to a number of lying-in women, and is not traceable to cold, to exertion, or other causes, as metritis very frequently is. There are many symptoms common to both, and few peculiar to either, yet in most instances, and probably in all, a careful attention to the origin of the disease, and the succession of its symptoms, will prove a sufficiently accurate guide to direct us in the appropriate modes of treatment. The acute inflammatory puerperal fever, inflammation of the uterus, its peritoneal investment and contiguous structures, I have seen arise from cold, from over exertion early after delivery, and in some instances apparently from mental causes, while the low form of puerperal fever is probably in all cases the result of contagion, or the reception of some morbid agent, which evidently produces a disposition to putrescency, a dissolved state of the blood, and a general ramollissement of the uterus, the spleen, liver, and kidneys.

In the second number of your valuable journal, which succeeded the paper I submitted to your readers, there appeared a communication decidedly corroborative of the accuracy of those distinctions which I had endeavoured to point out.

M. Sanson, of the Hotel Dieu, there states that he had "treated several cases in the present year of uterine phlebitis, and that it proved fatal under every plan of treatment, and assigns as a cause of the disease the sudden changes of the weather as to temperature and humidity." With this opinion I cannot concur, having witnessed puerperal diseases in their worst and most fatal form in the warmest and driest seasons, as well as in the wettest of our autumns and winters.

"M. Sanson states, that two cases of metritis were cured by the adoption of the antiphlogistic mode of treatment; but he says that bleeding, whether local or general, though employed at an early

period, has proved unsuccessful, and the antiphlogistic plan has been found in numerous instances to hasten rather than retard the fatal result; nor did mercurial frictions, laxatives, nor vesications, prove in the least degree more beneficial." M. Sanson has employed emetic tartar in inflammations of the veins following surgical operations, and observes that future experiments must shew whether this, or any other remedy, is capable of neutralizing the effect of the contagion of puerperal fever."

It is a curious fact, that pregnant and parturient females are perhaps exclusively the only individuals susceptible of the disease excited by this contagion; but I have lately heard a case related by a friend which, if correct, would seem to shew that it is capable of being received into the system independent of pregnancy or parturition. An observant practitioner, with whom I was conversing on the subject, detailed the case of an elderly female, who had never been pregnant, and who was under his care for stricture of the rectum at a period when puerperal fever was extending its ravages. She resided under the same roof with a woman who at the time laboured under the low form of puerperal fever. She was seized with shiverings, pains in the hypogastric region; the abdomen became tumefied and tympanitic; her pulse small, frequent, and irregular, with the characteristic prostration of strength and disturbance of the sensorium, and he considers her death to have been occasioned by the contagion of puerperal fever.

It is difficult to explain the reason why women, whose uterine system is in a state of development, should be almost, if not entirely, the sole victims of this disease; nor does our present knowledge of the laws of contagion enable us to discover why this, or any other miasma, should affect one part of the body while all the others, although equally exposed to it, are exempt from its influence. Thus influenza, an epidemic which has been so prevalent lately, affects first the mucous lining of the larynx, pharynx, and nares; cyananche parotidæa, the glandular system; and the contagion of Egyptian ophthalmia excites inflammation only in the eyes.

The consideration that typhoid puerperal fever is influenced so little by any remedial measure at present known, is

humiliating; and I cannot help believing that the mistaken pathology respecting its danger being commensurate with, and dependent on the degree of inflammation, has tended greatly to retard the discovery of other and more successful modes of treatment than have yet been devised.

I should not expect benefit from the use of tartarized antimony, as suggested by M. Sanson: it would excite vomiting; and the agitation and pressure of the abdominal muscles would probably increase the symptoms; for the like reason, the spiritus terebinthinæ may be considered a very doubtful remedy; it has failed in the practice of some of the ablest of the profession, and I have never heard from any of my medical friends a single case corroborative of the sanguine statements of Dr. Brenan. With respect to active depletion, by bleeding, whether local or general, I would suggest whether we are not by it counteracting the efforts of nature, and whether the febrile symptoms may not be a salutary means of enabling the system to throw off that which would inevitably prove destructive to life, and if this be at all correct, if we diminish power and exhaust the patient by copious bleeding, all that remains for us is to watch her certain progress to the grave.

The early and free employment of mercury appears to promise more than any other remedy hitherto suggested, and mercurial frictions to the thighs and abdomen, with the internal use of calomel in large doses, repeated at short intervals, should be had recourse to, so as to affect the mouth as speedily as possible.

I am fully aware that there is little novelty in the suggestions I have ventured to make, as to the nature and treatment of the varieties of puerperal fever, nor can I propose any remedy by which it may be successfully combated, with a degree of certainty; yet there are practitioners who are still so much influenced by great names, and who swear by Gordon, Hey, and Armstrong, that their creed is infallible, blind to the fallacies of their theory, when their patients die, after having been subjected to the antiphlogistic treatment in its fullest extent, they attribute the fatal result (like their learned predecessor, Dr. Sangrado,) to their not having lost a sufficient quantity of blood, nor squal-

lowed enough warm water! An accurate and just theory of the nature of a disease is likely to lead to a successful plan of treatment, and as this is one which destroys human life at its most valuable and interesting period, I shall be quite quite content if this paper possess only the negative merit, *populum falsis dedocere uti vocibus*.

CHARLES SEVERN.

Jewin-Street, Aldersgate-Street.

TUBE FOR EXPLORING DEEP WOUNDS, &c.

To the Editor of the London Medical Gazette.

Gateshead, Aug. 6, 1831.

SIR,

HAVING frequently proved the utility of the instrument described below, I shall be obliged by the insertion of this communication in your journal.

I wish to call the attention of the profession to an easy method of inspecting deep-seated parts, which cannot otherwise be brought into view, *e. g.* vagina, os uteri, perhaps the rectum, and the bottom of deep wounds, as well as incisions made by the operator.

The instrument alluded to is simply a glass tube, open at both ends, inclining to a conical shape, the larger end spreading out, or bell-shaped, while the smaller one is rounded off very smooth, and approaches the semi-globular form. The opening at the smaller end must be as large as it can conveniently be made, and with perfectly smooth rounded edges—the whole tube of sufficient strength to obviate any hazard of breaking; and of different sizes, so as to be adapted to the various purposes to which they may be applied. The above description will enable any of the dint glass manufacturers to supply the tubes.

The rounded form of the smaller end renders its introduction perfectly easy; and if the patient is so placed that the light passes down the tube, whatever part presents at the opening may be inspected in a satisfactory manner, cleaning it if necessary with a piece of sponge fixed on the end of a probe. When used in examining the vagina, &c. or in making exploratio obstetrica, female

delicacy may be spared by passing the tube through an opening in the linen.

I am, sir,

Yours respectfully,
T. K. FIRE.

MEDICAL EDUCATION.

To the Editor of the London Medical Gazette.

SIR,

I HOPE you will favour me with a place in your pages for the few following remarks. The subject of them is one of great and general interest, both to the public and the medical profession, and, I hope, may soon meet with that attention from all which its importance demands.

I am, sir,

Your obedient servant,
J. S. M.

August 9th, 1831.

To Sir Ashley Cooper, Bart.

To you, sir, as at the head of the surgical department of our profession in England, I would beg to offer the few following observations, hoping they may meet with your attentive consideration and efficient support. My attention has been more particularly drawn to the subject by some remarks in Dr. Conolly's valedictory lecture on retiring from the London University, published in the Medical Gazette of May 7th—remarks which, I fear, are but too well founded. He there declares it to be "his fixed opinion, that the study of physic, as a preparation for practice, is most miserably neglected;" "that every successive year sees hundreds of young men entering upon all the responsibilities of practice, and undertaking the management of the most serious diseases, who are actually not yet sufficiently versed in the practical part of their profession, to engage in it with safety to their patients;" and, "that for this extraordinary and lamentable fact, those at the head of the profession have in some measure to answer." The lapse of forty years, sir, you are well aware, has seen a great and decisive change in the practice of the healing art. The race of old English apothecaries is extinct, the midwives have nearly disappeared, while

the physician has retired, or rather has been *ousted*, from a considerable part of his former sphere, and the mass of practice is falling into the hands of the *general practitioner*, a title of very wide and *general* signification; including within it the well-educated surgeon, with a medical degree in his pocket; and the druggist, and retailer of ginger beer and soda water. The regular physician, of course, cannot be admitted even into this comprehensive fraternity. However varied the professional merits of the *confrères* may be, the field of exertion is one and the same; every department is open to them, and every department is entered by them, while the only one among them who can pretend on public grounds to be properly qualified for the immensely extended sphere, is the *graduated surgeon*, the *surgeon-physician*, or *physician-surgeon*, whatever term he may be styled by, who has taken out a regular medical degree, as well as a surgical diploma. These, we think, will be found to form but a small proportion of practitioners in England; while the others are almost systematically excluded from paying proper attention to the acquisition of medical science; for while the College of Surgeons demands no knowledge of it in those who, under the name of surgeons, are to practise it, the necessary acquaintance with it demanded at the examination in Apothecaries' Hall, is not, we fear, sufficient to supply the deficiency, the apothecary's department being a grade more remote from that of the physician than the rank of surgeon is understood to be; and yet Dr. C. observes, *nine-tenths* of the practice of medicine, strictly so called, devolves upon those who have taken no degree in medicine, and who have barely contrived, in the course of one or two years, devoted to the study of all the branches of medical science, "to pay some little attention to *medicine*;" and should a young man, starting as a general practitioner, find himself well acquainted with it, while he has cause of self-congratulation that he has not to acquire it "during the first half-dozen years of practice, and at the expense of many lives," he will, I think, have to thank himself more than the legal requirements of corporate bodies.

I would not, sir, find particular fault with the English surgeon, as a surgeon,

if he confined himself to that department of our profession for which alone his education has fitted him. He may reduce a dislocation, set a fracture, apply a bandage, with dexterous manipulation; while in the treatment of fever, dyspepsia, or even phthisis, I may doubt, and not without reason, both his knowledge and skill. Nor would I insist upon the mere degree of M.D. as the test of all excellence, but merely contend that the holder of such a *regular* degree, is better qualified for general practice than the surgeon, and would suggest that such parts of *his* education as give him this superiority be adopted into that of the surgeon. I have heard it suggested, and perhaps the idea is not a bad one, that different degrees might be conferred, according to the professional attainments of candidates for license to practise; perhaps, such as masters in surgery, bachelors in medicine, &c. which, after a proper course of study and examination, might confer such respectability upon the holders, as to become an object worth contending for by the student of medicine: for what young man is likely to put himself to the trouble and expenses of the M.D. if he pretend to general practice, when he knows he must put *it* in his pocket, and *himself* on a level with any apothecary's boy, who settles as a surgeon next door to him? But who, it may be asked, are to confer these degrees? the Hall of Apothecaries, the Colleges of Physicians and Surgeons, and the Universities, will all be up in arms for the defence of their privileges. I would look, however, to public opinion, to the liberal spirit of his Majesty's government, and to the intellectual light of the age; and would hope, though, alas! it looks too like a "forlorn hope," that, as something *ought*, so something *may* be done. I would cast an eye upon the London University and King's College. If they fail in making any alteration and improvement, and other learned bodies shut themselves up within their chartered rights, the work of systematic mischief will, I fear, go on as it does now; for poor good-natured John Bull, if the subject be not brought prominently before him, is not likely to trouble his head much about the matter, but continue to swallow the assertions, as he does the drugs, of any ignorant pretender,

who says he is wise without experience, or learned without study. Hoping, sir, that you will excuse the liberty I have taken in thus addressing you, and that these crude suggestions may not be altogether thrown away, I am

Your most obedient servant,
J. S. M.

ON DISINFECTION AND THE PRACTICE OF THE QUARANTINE;

Being an Examination of certain parts of a Pamphlet lately printed by Dr. Ure, on this subject.

THE disinfecting powers of chlorine have been so clearly demonstrated by the success of its application during a long course of years, that there is no occasion for us to make any remarks upon the evidence given by the Doctor; we purpose confining our observations to his new experiments, which we repeated, as follows, on their first announcement:—

1st EXPERIMENT.—Present: C. Lutwidge, Collector; — Rodmell, Comptroller of the Customs; G. Fielding; and J. B. Emmett. Some dry litmus paper was rolled up in a few folds of flannel, which was tied up in a bundle; a powerful stream of chlorine was brought in contact with every part of the surface of the flannel, and continued for more than a quarter of an hour. On unpacking the bundle, there was no change in the paper.

2d EXPERIMENT.—Present: as before. The same was repeated with moist litmus paper. No change.

3d EXPERIMENT.—Present: C. Lutwidge, G. Fielding, J. B. Emmett.

Two equal and similar miniature bales of hemp were provided, in the middle of each of which was placed moist litmus paper. They were considerably pressed, and wrapped in canvas. The dimensions were, fourteen inches long, six broad, and four thick. One was kept in which chlorine had no access, as exposed in a deep vacuum dense stream twenty tightly

six hours the packs were examined; the latter smelled very powerfully of chlorine. The two sets of papers were precisely alike; both were whitened in a very inconsiderable degree, but to the same degree; and we have no doubt that the vapour of packed hemp whitens litmus, or that the hemp absorbs the colour mechanically, as charcoal does.

Now, since in twenty-six hours the chlorine was unable to penetrate through two inches of packed hemp, we beg leave to propose a query to Dr. Ure: in what time, we mean in how many years, chlorine will penetrate to the centre of the lowest tier of hemp bales, which have been packed by powerful screws, or even by the hydraulic press, and which are wedged as tightly as possible in the ship's hold? We must remember, that when porous matters are very tightly packed, they are not penetrable to any considerable depth by even water, whose powers of capillary attraction incalculably exceed those of any gas. This is proved by the leakage and wrecks of ships. Besides, the density of the chlorine, when it proceeds below the surface of the goods, must decrease in a geometrical progression, and may therefore be represented by the logarithmic curve. Hence it cannot penetrate far, in a state sufficient to produce disinfection.

Dr. Ure remarks, in another place, that in one experiment the outside of his bale was corroded by the chlorine. If this be requisite to the production of the effect, those who know how bales are packed together, will see that the corrosion of the outside must ruin the whole, and make it unmarketable. Besides, the doctor has never proved that chlorine, which will just bleach litmus paper, will disinfect effectively—a very doubtful point.

If goods be really infected, they must certainly be unpacked, spread thinly out, and exposed to the disinfecting gas.

With respect to the gravity of the gas causing it to descend and leave the upper part of the apartment without any, we can only say, that it is contrary to what Mr. Dalton has established respecting the uniform diffusion of gases through each other, and to experience. We only beg the doctor to open a bottle of chlorine in any part of a large room, and he will perceive the smell very powerfully, almost instantly, whe-

ther opened on the floor or in any other situation.

GEO. FIELDING, Ch.
J. B. EMMETT.
G. H. FIELDING, Ch.*

Hull, 18th August, 1881.

SULPHATE OF QUINA IN THE STRUMOUS VARIETIES OF OPHTHALMIA.

To the Editor of the London Medical Gazette.

SIR,

In your number for July 30, page 545, Mr. Middlemore has surely fallen into an error, in ascribing to Mr. Mackenzie a predilection for bleeding and mercury in strumous cases of ophthalmia. In his paper "On the Utility of Sulphate of Quina in Strumous Ophthalmia," published in the Glasgow Medical Journal for November 1828, Mr. Mackenzie strongly recommends this medicine, both in phlyctenular ophthalmia, or the disease commonly called scrofulous inflammation of the eyes; and in cornetitis, an ophthalmia with which a certain degree of iritis is generally conjoined. Extracts from this paper are given in the Medical Gazette, vol. iii. page 234; but it is necessary to have recourse to the original, to see how far Mr. Mackenzie's confidence in the remedy extended at that date.

I am, &c.

A. B.

MR. PATTISON'S "STATEMENT."

To the Editor of the London Medical Gazette.

SIR,

HOWEVER painful it may be to refuse the feelings of sympathy to a person in Mr. Pattison's situation, he is not to be allowed to promulgate misrepresentations against respectable gentlemen and a large class of students, without some remark. It is evident that the ex-professor does not know the generous cha-

racter of the minds of English students of medicine: he may stare when he hears it stated that there is no body of men more ready to espouse the cause of a teacher, and whenever there is the slightest disposition exhibited to treat him unfairly, to uphold him with devoted attachment against his enemies. This will be found true even when their professor is not endowed with much eloquence, or a very attractive lecturer. But this generous feeling arises from a definite cause, which it is easy to describe. The students must perceive that their preceptor is devoted heart and soul to their interests—that it is for their advantage that he works with all his powers—that they themselves are the objects of his unceasing anxiety—and not another—especially not himself. If they discover that he is idle, and that there is mingled with this a constant attempt to draw attention to himself, they justly enough abandon him, to make the best of this propensity. If he talks to them with an air of conceit and gasconade of performing the operation of hernia with a penknife—of tying the carotid artery as commonly as any of them have bled in the arm, and of doing many other wonderful feats, the students have common sense enough to know that this is not for their interest—that young anatomists are not to become surgeons by this display of the prowess of their professor. They see in the library the large and splendid work on hernia, by Sir Astley Cooper, full of the most finely-executed and expensive plates, a donation made by that eminent surgeon to the profession, at a great pecuniary sacrifice, as if it were to mark strongly his sense of the difficulties and the importance of the operations of hernia. They know very well that the tying of the carotid artery is not to be treated as an every-day occurrence. Although they may be yet but students, they have a quick-enough sense of what is the proper style of communicating information to them.

I am the farthest possible from pretending to justify altogether the riots and outrageous conduct of the pupils in Mr. Pattison's class-room. The want of discipline was in a great measure to be attributed to the students knowing that there was a Council and a body of Proprietors to whom Mr. Pattison was amenable, (a thing "unique" in the annals of Universities,) and more so to

* Being engaged on quarantine duty, did not witness the experiments, but was present at the opening of the tubes and examination of the litmus paper.

the Council, acting throughout the whole of these transactions with the greatest indecision both towards their Professor and towards his pupils. But when Mr. Pattison alleges publicly, and Dr. Birkbeck reiterates what he says, and the newspapers circulate over the country that his colleagues conspired against him, and that the students were malevolent, and that every one sought his ruin, it ought also to be represented what is the true character of this persecuted individual. We do not mean what is his private character: all that we have to do with is his method of addressing the pupils, and the truth of his allegations in his public statements. These are to be placed in the scale in weighing the merits of this most singular case of alleged conspiracy. Without them it cannot be understood how it was only in Mr. Pattison's class-room, and not in that of any of the other professors, and that it was for three distinct sessions, that this insubordination of the pupils was manifested. The inquiry ought to be fully carried through, as it is necessary for justifying the many against the one.

I have neither time nor inclination to examine the numerous charges brought by Mr. Pattison, in his Statement of Facts, against all his enemies—among the students, professors, Select Committee, Warden, and Council of the London University; but I think the last-named body ought in justice to be acquitted of one charge, not the least inexcusable, if it were true. He asserts that he had as his competitor and rival candidate for the chair of anatomy Mr. Charles Bell—that the Council, "after mature deliberation," made their selection, and chose him, the author of this Statement of Facts, in preference to Mr. Bell. But the Council must be exonerated on this head: Mr. Charles Bell never was a candidate for the professorship of Anatomy.

Mr. Pattison has entirely forgotten, in his blind attempt to magnify himself, what the original prospectuses (which I have lying before me) contained. They announced that the anatomical department was to be taught by three professors, whose names are given, but without any appearance of his holding that elevated position which he boasts of; they are—Mr. Charles Bell, Mr. Meckel, Mr. Pattison.

Every one contemplated that the last-

named professor, who was totally unknown, was to undertake the rudimental parts of anatomy, and to make his way in public opinion as every man must do who commences lecturing in London. Certificates from America could never support a man in the estimation of London students. The notion which made this announcement in the prospectus acceptable was, that he was to prepare the students for the lectures of the eminent men with whom he was associated.

It was the failure on the part of the Council to induce Mr. Meckel to join their school which made a change in the position of Mr. Pattison. It was not until a year after the first prospectus was published, as his own "Statement" announces, that the Council entertained the idea of adding the late Mr. Bennett to the anatomical department.

Mr. Pattison speaks of his having been elected after "mature deliberation." If there were such delay, we can surmise the reason. It could not be unknown to the Council that he had been engaged in disputes wherever he had lectured; and they must have had to determine, whether the frequent shifting of his scene of lecturing was occasioned, as his certificates declare, by a succession of honourable promotions, or were the consequence of these contests*. It is surely an instance of the friendly disposition of the Council towards him, that they interpreted his certificates in the most favourable way.

Being placed where he was, it was the personal interest of every individual professor to prop up their teacher of anatomy, and to maintain for him a respectable character. The interest of the whole school required it, more especially when it was assailed, as it was, at its commencement, by numerous enemies from without. Yet it would appear from the statement, that those who were most concerned in supporting him, were conspiring against him even before his lectures began.

I have the honour to be, sir,
Your obedient servant,
VINDEK.

17th August.

[We should not have inserted the preceding letter had not the name of the writer been sent with it. It has in

* See, in reference to this, a letter addressed by him, about this time last year, to the *Lancet*.

no degree altered the opinions we had previously expressed in the leading article of the present number.—E. G.]

ANALYSES & NOTICES OF BOOKS.

"L'Auteur se tue à allonger ce que le lecteur se tue à abréger."—D'ALEMBERT.

THE LATE DR. BADELEY.

DIED, on Sunday morning, July 24, at his residence in Chelmsford, John Badeley, M.D. in the 84th year of his age. He was the youngest son of Samuel Badeley, Esq. of Walpole, in the county of Suffolk. He took his degree of Doctor in Medicine at Edinburgh, September 12, 1771, and had practised in this town for the long period of 59 years. It would be an injustice to his memory, if this record of dates were to be considered only as a copy of that register—

"Where to be born and die,
Of rich and poor makes all the history."

Of Dr. Badeley, who has been so long identified with this town, neighbourhood, and country, it may justly be said, that he has left a void not easily to be filled, whether we consider him as a man, physician, or friend. To his profession he brought an acute penetration, a solid judgment, a benevolent care, great suavity of address, and a most persevering anxiety for the comfort, relief, and cure of his patients, to whatever rank of life they might belong. In society he uniformly exhibited the urbanity and manners of a polished gentleman: among his friends he was hospitable, cheerful, easy, and as willing to be pleased as he was capable of making himself pleasing. If he has not added greatly to the stock of medical science by his writings, (for he had no leisure for such compositions) he displayed his abilities by a most extensive practice, and he preferred the gratification of having living witnesses, who owed their health to his judgment and skill, to the publication of theories, however ingenious, and to the commendation of professional critics. His life was prolonged to a period beyond the common limits of mortality, and in proportion to its length, were its value and utility demonstrated. He lived esteemed, beloved, and respected; he has died regretted, honoured, and lamented.

The History of Medicine, Surgery, and Anatomy, from the Creation of the World to the commencement of the Nineteenth Century. By WILLIAM HAMILTON, M.B. In 2 vols. Lond. Colburn & Bentley.

WHEN reviewing Mr. Moir's little volume, the *Outlines of the Ancient History of Medicine**, we entered pretty fully into the consideration of the utility of such works; and being much pleased with his performance, we recommended that gentleman to proceed in his design, which we saw obscurely intimated in his last page, and to let us have in two volumes more, of the same size, such a continuation of the work as might bring his *Outlines* to the beginning of the present century. We did this with Dr. Hamilton's volumes before us, half persuaded that they did not supply the want in medical literature of which we complained, or, at all events, not seeing why Mr. Moir, who had begun so well, should be baulked in his intentions by the appearance of the Doctor's work, whether well or ill executed. It has since, however, on a deliberate perusal, been impressed upon us, that the "*History of Medicine, Surgery, and Anatomy*," is a work of very inferior merit, and far from being suited to satisfy the expectations of those who feel interested in such subjects. And having ventured to pronounce so unfavourable an opinion thus in *limine*, it is of course our bounden duty to support it with specimens of what we conceive to be the unwarrantable defects, inaccuracies, and even glaring errors of the performance.

Much has been written, and well written too, on the *ancient* history of medicine; and if we comprehend under that epithet all that eventful period which reaches from not exactly the *creation of the world*, (for few historians of the art have pretended to trace back any authentic particulars of it to so extremely antediluvial an epoch,) but from about the time of Hippocrates, that is, about 3500 years later, to the beginning

* *Med. Gaz.* p. 368, present volume.

of the 16th century, we shall find the materials, though somewhat voluminous, almost ready arranged to our hand. Even if we had no other groundwork than Le Clerc and Freind, for illustrating the period in question, we could not have better;—Le Clerc, than whom, notwithstanding the flippant mention of him in the work before us, as “a French writer of *no mean abilities*, whose *History of Medicine* is a work of *considerable merit*,” few have adorned the profession with more learning and powers of research; and Freind, a man of genius and profound erudition, whose virtues and talents have not obtained from his country one-tenth of that celebrity which they have deserved. But we have besides these, in the works of Schulzins, Casiri, Portal, and Sprengel, a fund of information illustrative of the earlier periods of medical history, abundant and copious as need be desired.

These ample sources, however, vanish almost into insignificance, when compared with the mass of materials which lie before us for the illustration of medical history during the last three centuries. They require, to be sure, a master-mind to elicit their spirit, and to reduce them to a shape fitted for the grasp of ordinary inquirers; but this is the province of him who sets himself up for an historian—it is a duty from which he cannot escape or be excused. It will not do for a writer to present us with a chronological series of medical sketches in lieu of this digest: he must not impose upon us such meagre and crude morsels for *history*: it is become, we know, the fashion of the day, but one is tired of hearing the appellation of history so shamefully misapplied, and it grows a thing no longer tolerable. We are sorry to be obliged to rank Dr. Hamilton among historians of this class; but we cannot help it: he has himself provoked our censure by the pompous title he has bestowed upon his book.

Let us enter somewhat more into particulars. The first volume, which is far the more voluminous of the two, brings us up to the beginning of the sixteenth century, *from the creation of the world*, though “of the years *before the flood*,” says our author, “we can catch but those rare and partial glances which Omnipotence has been pleased to reveal in the writings of Moses—glimpses which are *hardly sufficient for the con-*

struction of a plausible hypothesis, or the foundation of a probable conjecture. Like travellers enveloped in an Alpine mist, we wander in darkness and uncertainty without compass to direct or planet to enlighten us!” The more merit then, of course, has Dr. H. in extracting a history out of those *glimpses in darkness*—though certainly we do not find that he has made much of them. Upon turning to that part of the book where we expected to find this period treated, we perceive the matter thus briefly disposed of:—

“Of the state of medicine before the flood, we are destitute of the slightest *authentic* records on which we might form a *conjecture*: we are justified, however, by many circumstances recorded in the Holy Scriptures in *believing* that medical, as well as many other branches of useful knowledge, *had arrived at a very considerable degree of perfection in the antediluvian ages*.” Three pages are then occupied with conjectures of various sorts, such as, that we are “justified in a *suspicion* of the identity of the *fabulous Tæut* with the *true Tubal*,” and, generally, that “numberless personages whom we find spoken of as having lived at periods considerably posterior to the great catastrophe of the deluge, *are to be sought for*, if we would find their real prototypes, in the ages which preceded that *memorable event*, and in the very infancy of the human race.” Our author quotes Schulze for “the strong probability that Adam, yielding to the all-authoritative voice of necessity, discharged the office of accoucheur to his wife, and thus performed the first operation in surgery.”

We recollect a better conjecture than this, concerning the first exercise of the art of surgery—we mean that of Sir Thomas Brown, who, in one of his most learned treatises, is pretty positive that God himself performed the first surgical operation when he removed one of Adam’s ribs for a certain purpose—and healed up the wound, we suppose, by the first intention!

We give Dr. Hamilton’s summing up of the antediluvian period: it will excite a smile from the reader who shall attend to its elaborateness, while it cannot but surprise him by the inconsistency which it manifests with a passage which we have just now extracted:—

“In referring, with Brambilla, the

origin of surgical instruments to a period so remote as the second generation from Adam, it must not be supposed that men had, in those early days, made *any very great* proficiency in the art of surgery, or that the instruments which they employed were of other than the rudest and most inartificial construction. *As the medical knowledge of the Antediluvians may be reasonably presumed to have been confined to the exhibition of a few vegetable simples of the mildest character and most innocuous activity, so we may justly conclude that their surgical skill was equally restricted* to the treatment of the most ordinary wounds and the application of the least complicated bandages; to the reduction of a dislocated joint, or the setting of a broken limb. The amputation of a sphacelated leg, or the trepanning of a fractured skull, would have been a flight of skill far transcending the narrow limits of Antediluvian knowledge—a deed of daring far beyond the cautious timidity of an age of inexperience; and the practitioner who should have had the hardihood to attempt the operation of lithotomy would have been viewed as little, if at all, better than a murderer.”

But escaping as rapidly as possible from the regions of fable and romance, we pass on to the account of Hippocrates, given in the next chapter, expecting to find our author's talent for conjecture turned to some account in elucidating the private history of the father of medicine. Will it be believed, however, that Dr. Hamilton does not even favour us with what few facts have been, almost by universal consent, attributed to the Coan sage? That he was the son of Heraclides and Praxitheas—that he was the seventeenth in descent from Esculapius on the father's side, and the twentieth from Hercules on the mother's—and that he travelled even amongst the Scythians in quest of knowledge, might be passed over by our author as too apocryphal; but he who has displayed so much ingenuity in his antediluvian conjectures, might not have disdained to give us his opinion on the probability of Hippocrates having practised in Athens during the pestilence, and having been rewarded with a golden crown there for his services, notwithstanding the silence of Thucydides on the matter; or whether the father of physic had Herodicus and Gorgias for his early preceptors; or whether he had

the pleasure of being able to pronounce his old master in philosophy, Democritus, who was supposed to be the maddest, to be really the wisest man in his city. All this would have been both amusing and instructive in Dr. Hamilton's hands, but he has done nothing with it. The only facts he touches upon in the biography of Hippocrates are contained in these two sentences:—

“This celebrated physician was born in the first year of the 80th Olympiad, or between 400 and 500 years before the commencement of the christian æra, in the island of Cos or Coos, situated in the Ægean sea, at no great distance from Rhodes: an island singularly distinguished by having given birth to two of the most eminent men in their respective professions among the ancients—Apelles, the first painter, and Hippocrates, the first physician of his age.”

“His valuable life was prolonged considerably beyond the ordinary duration: he died at Larissa, a town of Thessaly, about 361 years before the birth of Christ, at the advanced age of 101 years.”

It is rather curious, we may observe *en passant*, that Dr. Hamilton, so classical a man, should mention the first year of the 80th Olympiad as some year between the 400th and 500th before Christ; and that he should afterwards state Hippocrates to have died in the year 361 B.C. æt. 101. If Hippocrates was born in 80th Olymp. 1, and lived to be 101 years of age, Dr. H. should know that the father of physic certainly died in 359 B.C. These, however, to be sure, are trifles; and if our historian has not given us the private life of Hippocrates, he has given us plenty of his theories, it may be said, in lieu. To tell Dr. H. the truth, we are heartily tired of this eternal *decies* or *millies repetita* reiteration of the theories of Hippocrates; we are surfeited with the *toujours perdrix* of the copyists of Le Clerc, especially when they proceed with their diatribes as if they were original investigators of the writings of the Coan. As for Dr. H. he seldom, it is true, favours us with references; but in this instance, with the exception of one passage acknowledged to be from Cabanis, he thinks proper to ascribe, at least we may judge so by his silence as to authorities, his whole account of Hippocrates's doctrines exclusively to Hippocrates and himself.

Galen is treated almost as cavalierly. We extract what is said of him:—

"The illustrious Galen, who deservedly occupies so conspicuous a station among the fathers of medicine, was the son of Nicon the geometrician, and born at Pergamus, a city of Asia, celebrated as the place where parchment was first manufactured. [What an interesting piece of information by way of parenthesis!] The date of his birth is not known with certainty, but he is generally believed to have flourished under the reigns of Trajan and the three succeeding emperors, attaining, it has been said, by extreme care, notwithstanding the natural weakness of his constitution, an age of *no less than 140 years*. Having made himself master in his youth of all the logic and philosophy which were usually taught in those days, he applied to the study of medicine under Satyro and Pelops, whom he soon outstripped by the rapidity of his attainments. He appears to have first distinguished himself as a medical writer under the reign of Adrian, or about the year 130, at which period he attracted considerable notice both as a teacher and practitioner."

Now the fact is that Galen, according to the best authorities, was born in A.D. 130, and died in 201, æt. 70. We wonder what Dr. Hamilton could have been thinking about when he adopted such inaccurate statements.

But we come now to a period when the original research of our author is put to the test. Le Clerc parts company from him with Galen, when Freind is said to begin his guidance. This, however, is not quite correct. Freind's history, though said in the title-page to commence from Galen, actually commences with Oribasius, who flourished *full two centuries after the Physician of Pergamus*. *Not a word does Dr. Hamilton say illustrative of the interval*. After finishing off Galen, and devoting a few lines to a little talk about "a night of Cimmerian darkness" which followed thereupon, "relieved only, at times, by the transient splendour of a few passing meteors," &c. he comes at once to Oribasius.

"Pergamus, which deservedly boasts of having been the birth-place of the illustrious Galen, [and of parchment, he might have added] also claims the merit of having given birth to Oribasius, who appears to have been born about

the year 351, in the time of Julian the Apostate, and to have received the first rudiments of his education along with Magnus and Ionicus, at the school of Zeno, the Cyprian, at Sardis, from which circumstance Oribasius has been erroneously supposed to have been a native of that town," &c.

And so he goes on, wonderfully full about Oribasius, with Dr. Freind's assistance; but not a word about Serenus Sammonicus father and son, Alexander Aphrodisæus, Elian of Præneste, or any other eminent physician who flourished in the interval. We are sorry to see this, it betokens so blind an adherence to the tracks of one or two of the most obvious authorities; but we must proceed: pass we, without delay, into the midst of the Arabian physicians. And here in the outset we must observe, as a remarkable circumstance—not a word from Dr. Hamilton respecting his immense obligations to Dr. Freind. We come to Averrhoes; and we shall see into what a quandary our author plunges himself by his disdainful references. After telling us that Averrhoes became an unbeliever, and was in consequence charged with heresy and thrown into prison, but released upon a *comparative* view of his errors, the historian of medicine coolly thus proceeds:—

"*Bayley* has collected many anecdotes respecting Averrhoes, from a variety of authors, by whom he has been led into a multitude of errors: as, for example, when he speaks of his enmity with Avicenna, which he assigns as a reason for his never making mention of him: a statement which only proves that *Bayley* blindly followed the authority of the writers he consulted, without once taking the trouble to refer to the writings of Averrhoes himself, in which he would have found the inaccuracy of this statement. *Bayley* likewise labours with no small assiduity to fix the charge of impiety upon the memory of Averrhoes, whom he represents as denying the immortality of the soul, and the existence of future rewards and punishments; as though it necessarily followed, from his questioning the absurdities of the Mahometan faith, that he denied all the great and fundamental truths of religion: or, as if the fact of his detecting the adulterations produced by the alloy argued his inability to distinguish between them and the precious metal

which they debased. Had *Bayley* sought for a confirmation of this charge also in the works of *Averrhoes* himself, he would have discovered it to be utterly destitute of foundation, and to have originated solely in the malignancy of his traducers; for *Averrhoes* has, in one treatise, expressly maintained the immateriality, and, in another, the immortality of the soul: facts which fully disprove this idle and malicious charge."

Now who is this *Bayley*, with whose critical delinquencies our author is so familiar—whom he undertakes to censure for his blindness in not examining authorities—for his labouring to fix the charge of impiety on *Averrhoes*—and for not having looked into the works of the Spanish-Arabian in their original purity?

We pray our reader's attention for a moment, while we answer the question, and at the same time expose as ridiculous a piece of pretension as we ever remember to have met with.

The *Bayley*, then, of the above extract is no less a personage than the great critic, *Peter Bayle*, whom the historian of medicine has thus traduced, and of whom he does not seem to have ever possessed the slightest knowledge. We were a little puzzled ourselves, we must confess, at first; but recollecting that Dr. H.'s sources were rather limited, and that most probably the critical notice above cited was shadowed out from Freind in some manner, we turned to that author and found the original, unadulterated, unperverted passage, without any difficulty. We observed that the words of Dr. Freind were most curiously garbled—not to say totally obscured—as they were given by our historian; and it was not until we still further recollected, that Dr. Hamilton used for his compilation the Latin translation of Freind's history, that we were in some measure relieved from our astonishment. The first sentence or two of the Latin version will suffice to inform the reader concerning Dr. H.'s process of history writing:—

"Multas res ex variis auctoribus ad *Averrhoem* pertinentes collegit *Baylius*: sed cum hic illius scripta, uti videtur, nunquam aspexerit, auctores istos fidenter sequens, ab iis sæpe in errorem ducitur. Uti cum," &c.

And the corresponding passage in the original English will shew how much our author deviated from the right path,

by taking his information from second-hand authority:—

"Mr. *Bayle* has collected a great many passages out of authors, relating to *Averrhoes*; and as he seems never to have been acquainted with the original, he follows these authors implicitly, who often mislead him. As when he tells us from *Champerius*, that he was a bitter enemy of *Avicenna*, and that for this reason he avoids ever naming him, which he does in this very book often," &c.

Having our curiosity rather whetted by what we had thus discovered regarding Dr. Hamilton's notions of a *Syngraphein*, we were induced to compare other passages in his book with those corresponding (?) in the author from whom he took them; and our clue often led us unexpectedly to some surprising inaccuracies, which weighed the more with us, as our author evidently entertains much conceit of himself as a classical man. For example: in his account of *Avicenna* (which, by the way, is even abridged from Freind, in whose history the brevity of the notice of the illustrious Persian is perhaps its greatest fault), he tells us that *Avicenna* "resided chiefly in the city of *Ispahan*, and was accused by the Arabs of an immoderate indulgence in pleasure, which subjected him to a variety of complaints, whence it became proverbial among them to say, that neither the study of philosophy contributed to virtue, nor that of medicine to the preservation of health." Now this last clause is vilely translated from the Latin translation, which runs thus:—"deque illo iis temporibus vulgare dictum erat, neque philosophiæ studia ad virtutem, neque medicinæ ad tuendam valetudinem quicquam ei contulisse:" and thus it is that Dr. Hamilton treats his friend Dr. Wigan, than whom, we are bound to say, he could not have had a more faithful guide, had he but availed himself steadily of his services. The passage in the original, we may add, is this:—"and it was a saying, they tell us, in those times, that all his philosophy could not make him moral, nor all his physic teach him how to preserve his health;" upon so slight a foundation has Dr. Hamilton reared his superstructure of a golden proverb current among the Arabians.

We find that we now have, in our cursory remarks on the "History of Medi-

few months they were pestered with anonymous complaints against their professor, and were weak enough to order them to be investigated. Mr. Pattison was put upon his defence, and Mr. Hume was constituted his judge. Mr. Hume, we know, is an amateur in these matters, and he executed the task assigned him; says Mr. P., with impartiality and fairness. The return was, that there was no legitimate ground of complaint.

We need not dwell on the well-known story of Mr. Bennett's indecorous behaviour to Mr. Pattison in public—we mean at the first distribution of medical prizes at the University. The circumstance was well bruited abroad, and certainly did not tend much to advance the interests of the establishment. Between the parties themselves it occasioned, naturally enough, an open rupture, which, we believe, was never even pretended to be closed again.

The plot now thickens: a new character comes upon the stage, and this in the person of the late warden of the University, Mr. Leonard Horner. He performs a part of the most extraordinary officiousness that, we think, we have ever witnessed. The scene is in Scotland, where the worthy warden happens to be spending the vacation. He hears that Mr. Charles Bell is in the neighbourhood; and without more ado, acting upon his own authority, calls on Mr. Bell, begs of him to accept Mr. Pattison's chair, and supposing that his solicitations had been successful, writes to the Council to confirm "this act of disinterested liberality." The Council for once shewed their sense, and rejected the impudent application; but this seems to have been only the first overt act of a system of hateful interference afterwards practised amply by the warden towards Mr. Pattison.

In the second session, new charges of

a more directly tangible nature were preferred against the professor, by students whose names, according to stipulation, were to be kept secret. This led to two investigations; one by a select committee of the Council, the principal members of which, Messrs. Brougham and Denman, expressed themselves fully satisfied of the groundlessness of the charges; and the other by four of the faculty, Drs. Conolly, Todd Thomson, Turner, and D. Davis, who not only procured positive evidence from the students themselves, that the charges were vexatious and false, but deemed it their duty to warn the Council against the danger of giving ear to attacks on character like these, that must at once disturb and disgrace the institution.

All this did not repress the eagerness of the Council, or perhaps we should rather say, of their principal organ, to obtain further grounds of accusation against the professor. An individual pupil at length came forward, and stated openly that, in *his opinion*, Mr. Pattison was incompetent to teach anatomy, and ought to be dismissed! What was the conduct of the Council upon this most disgusting breach of discipline, occurring under their very eyes? Their officer was directed to write to the ungenerous recreant, "that an examination (another!) into the conduct of a professor could not be instituted upon the representation of *one* pupil." The hint was sufficient; the *one* recruited for *more*, and succeeded eventually in procuring *fifteen* signatures of fellow-pupils to a memorial on Mr. Pattison's ignorance. The professor was *again* put upon his trial, and again were the Council obliged to come to their former decision, that these, like the former charges, were *utterly groundless*.

But it will be impossible to appreciate the boldness of the Council in venturing to give this decision, unless we take into

consideration the formidable petitioners, or memorialists, whom they had to deal with. The following is a specimen of a P.S. appended to one of the documents sent in during the investigation :—

“ Should you, however, neglect our prayer, we warn you that we shall publish this very appeal—shall lay bare the deep and unanswered malignity of the mis-statements attested by Dr. Birkbeck—the mean, party-spirited, wilful duplicity, by which he, as the supporter of Mr. Pattison, tried to make the proprietors believe that one student only charged that gentleman, and that an ignorant student. Could Dr. Birkbeck, a member of the Council, a canvasser for Mr. Pattison, the head of the party against our Warden, and the cultivator of these cabals—could he say that he was ignorant of the seventeen pupils, including the great majority of the medalists, who in a phalanx charge Mr. Pattison with a palpable dereliction of duty, and urge his dismissal? If so, why is he retained in the Council? Did he know of these facts, why did he hide them? Because he had an end to serve. Why, then, we boldly ask, is he retained a proprietor of the Institution? Why have his mis-statements regarding Eisdell's ignorance, an insult which we all consider personal to ourselves, not been officially contradicted? &c. &c.”

And this is language addressed by the students of an *University* to the governing body, one of whom is even singled out for especial censure, and all but commanded to be expelled! Were the authors of this audacity made an example of? Was a sweeping sentence of expulsion pronounced upon them? By no means: the spirited lads were borne with—were encouraged.

Soon after this last investigation, Mr. Pattison was induced to share his professorship with Mr. Bennett, and obtained from the Council the vacant chair of surgery, by way of compensation, and, it is to be presumed, in token of the unscathed character with which he emerged from his recent ordeal. It would be tedious, however, to trace all

the petty annoyances to which he was still exposed, and for which he deems himself principally indebted to his good friend, the Warden. It is certain, says the ex-professor, that when similar proceedings were again going forward, “ the Warden wrote, in the council-room of the University, a letter for these insubordinate pupils to lay before the Council, for the purpose of having another inquiry instituted against me. If Mr. Horner will deny the fact, I have the most unquestionable evidence to prove it. But Mr. H. will not do so: he knows too well, *although he took the precaution to have it copied, by one of the students who was present at the time*, so that his own handwriting might not rise up in judgment against him—that the pupil he entrusted with his confidence did not keep his secret.” We have no words strong enough to express our opinion of the conduct here exposed; and haply, neither have we space to devote to a more particular detail of the cabals which were still most disgracefully organized in the Professor's class-room. One or two circumstances, however, relating to this period, are too remarkable to be omitted. After relating some facts of a vile description with respect to certain acts of insubordination practised upon him in his theatre, he says, “ the same day after I had finished the lecture, and retired to my private room, I was followed by a Mr. Peart, who had been one of the ring-leaders in exciting the pupils to acts of insubordination, and had officiated as chairman at one of their meetings, a student who had rarely entered my class-room, and to whom I had refused, on account of the irregularity of his attendance, to grant a certificate. On his entrance he demanded his certificate. I told him mildly, that for the reasons I had already stated to him, I could not grant it. A student who was with him, said insolently, “ Mr. Peart has attend-

ed you as regularly as any body else." I did not reply to this, and Mr. Peart came up to me and said, "you are no gentleman." Having offered me this insult, he returned to the class-room, where a considerable number of the pupils still remained, and on being asked what he had done, he told them that he "had told Pattison he was no gentleman, and that he did not resent it!" Immediately afterwards he sent his attorney to serve a writ on me, to force me to grant him a certificate." Gross as this conduct was on the part of Mr. Peart, it should be added, that he found a palliator in no less a personage at the Council Board than Mr. Warburton: that gentleman was for excusing the personal insult, on the ground that it was offered in the Professor's *private room*—not his public theatre! But the Council put a finishing hand to the business, by letting the delinquent off, upon his making a sort of apology to *them*; after which they not only readmitted him to Mr. Pattison's lectures, but, says that gentleman, "the intimation" which conveyed that information to me, contained a direction to *grant Mr. Peart his certificate*, to which his attendance did not entitle him." We pause for a moment in astonishment at this singular proceeding in the heads of a university (!); and we only ask whether it does not imply, in addition to the grossest injustice to their Professor, the meanest truckling to the will and pleasure of the pupils; together with (what seems very like) the vilest dishonesty towards the public?

After this, what could be expected? Scenes were performed in the lecture-room that defy description; and a *standing committee* of the rioters issued their orders daily, whether Mr. Pattison should be heard in his own lecture-room or not. But were the Council aware of the existence of such a committee? Hear Mr. Pattison: "I answer, in-

credible as it may appear, they were not only informed of the fact by me, but they actually *communicated officially* with the chairman of that body!"

The climax of ridiculous, yet ruinous absurdity, was apparently now attained; but the Council had still some *duties* to execute. New charges were gathered against the ill-starred professor, and another investigation as to his competency or incompetency was determined on. Mr. Pattison proposed, that the *ipsissima verba* of his lectures for the remainder of the session should be taken down by a professional reporter—even by *our own* accurate stenographer; but this proposal was declined, and a method worthy of the Council adopted instead. This, as we reckon, was *the seventh* and last trial of the professor's ability. "Lord King, Mr. W. Marshall, and Mr. Merrivale, not one of whom knew a nerve from an artery, constituted themselves the judges of my anatomical pretensions! The proceedings of this committee became too ridiculous for even the students to stand it. The anatomical engravings belonging to the medical library were carried into the Council room; and with these before them, and with the assistance of anatomical dictionaries to explain technical terms, these gentlemen gravely deliberated on the amount and correctness of the anatomical knowledge possessed by the professor of anatomy!"

These methods, however, it now became manifest, were too slow for the purposes of those who would have the Professor out by all means. A Mr. Thomas Wilson gave notice that he would, at the next general meeting of the proprietors, move, "that Professor Pattison be recommended to retire from his professorships of Anatomy and Surgery." This announcement naturally led to much correspondence between Mr. Pattison and Horner, who was still in office, but called forth a feeling,

if not an indignant remonstrance, from six of the most distinguished general professors belonging to the institution. Nothing can be more flattering than the testimony borne in this document to the talents of the individual in question, or more strongly expressive of disgust at the unparalleled annoyances to which he was exposed. We have not room or we should certainly give this document insertion, as well as, perhaps, the separate, and, if possible, still more decisive letters of ex-professor Conolly and Dr. Lardner. But we must close our present paper, which has become longer than we had intended. On the 23d of last month the finishing stroke was put to the business by Professor Pattison receiving a letter from the clerk of the Council, containing the following resolutions:—

“Resolved—That Professor Pattison be, and he is hereby removed, from his situation of Professor of Anatomy and Surgery in this University.

“Resolved—That in taking this step, the Council feel it due to Professor Pattison to state, that nothing which has come to their knowledge with respect to his conduct has in any way tended to impeach either his general character or professional skill and knowledge.”

And the Statement ends with a brief appeal to the proprietors on the character and prospects of the University, which has been the scene of these strange transactions. “Lastly,” says Mr. Pattison, “I would call the attention of the proprietors to the ruinous operation which the mismanagement of the Council has exerted on the interests and prosperity of the University. * * *In the University of London, the system pursued has been to degrade the character and authority of the professors, and to court, by the most contemptible compliances, the favour of the students.*”

We are bound to add, in conclusion, that so far as we are acquainted with the transactions treated of in Mr. Pattison's

exposé (and, as our readers know, we have not been inattentive observers of the various movements which have taken place in the London University, from its very commencement), we must say, as we said in the beginning, that it is, as a statement, remarkably free from those exaggerations and mis-statements which would be very apt to slip into the narrative of grievances of an ardent and much-injured man. At the same time we must beg leave just to notice, at parting, two little inaccuracies which the writer has fallen into, and which he would do well to set right as soon as he conveniently can. In page 1, he states that Mr. Charles Bell and Mr. Mayo, among others, were his competitors for the chair of anatomy. This is not correct. Mr. Bell might have had that chair at the time, without competition, if he had wished to have it; and as for Mr. Mayo, though at a subsequent period he was, we believe, a candidate for the chair of surgery, we do not conceive it possible that he could have sought the professorship of anatomy at the opening of the London University, having just purchased the school in Great Windmill-Street from Mr. Bell. Again, in page 41, he quotes a passage which he says Mr. Bell delivered in his “valedictory lecture.” It should be, and we believe it is pretty well known, that Mr. Charles Bell never delivered any such lecture.

ALARM AT HULL.

IN consequence of information received by the Board of Health, Dr. Daun, who had but recently returned from his visit to Port Glasgow, was dispatched to Hull a few days ago. The cause of alarm in this quarter was apparently better founded than in the preceding instance:—a soldier was seized at three o'clock in the morning with vomiting and purging, accompanied by cramps,

coldness of surface, prostration of strength, and other urgent symptoms, under which he expired at eight P. M. of the same day. The gates of the barrack were shut, the troops placed under quarantine, and, as may be supposed, the greatest dismay prevailed in the town. On investigating the circumstance it was ascertained, that, though in general a person of temperate habits, the unfortunate patient had been indulging to excess in the festivities, which, we understand, take place at this season among the lower classes of the people at Hull. He had eaten an immense quantity of fruit, and been in a state of intoxication for nearly three days successively, and the night before his attack had been dancing, or attempting to dance, in a room rendered excessively hot by the state of the weather, as well as by the crowd which was present. These circumstances sufficiently account for the fatal result of this case, and are of great importance, as shewing the effect of intemperance in increasing the severity of the cholera of this country. A notice on the subject has been published by the Mayor of Hull; and as no other case of the same kind has occurred, the communication with the barrack has been opened, and confidence restored.

ABOLITION OF QUARANTINE IN RUSSIA.

THE Russian government has done away with all quarantine. The reason assigned for this is, that the whole empire being infected, nothing remains to be gained by the restrictions, which were in other respects inconvenient and imperfectly fulfilled. It is stated in the official order, that travellers will be delayed but a very short time; any who may be ill of cholera on board vessels, or boats, will be sent to the hospitals, and the conveyances suffered to proceed after having been fumigated. It is curious that, although this announcement, which im-

plies quarantine to be useless or unnecessary, is contained in a decree of the Emperor, a double sanitary cordon is nevertheless kept up round the court at Peterhoff.

DR. BARRY'S ACCOUNT OF CHOLERA.

WE subjoin an extract of a letter from Dr. Barry, which contains the most striking and graphic description of cholera which has yet fallen under our notice:—

St. Petersburg, July 20, 1831.

The disease is certainly somewhat mitigated, both as to the number and the fatality of attacks, though the weather has continued unchanged. Thermometer in our apartment steadily above 70° of Fahrenheit; very little wind, and what there is, constantly from the east, with the exception of about twenty-four hours last week.

Names for diseases or medicines, so contrived as to constitute little definitions, are bad things. I came here with an impression strongly fixed upon my mind, that the essential and dangerous features of cholera morbus were immoderate and ungovernable vomiting and purging of a serous fluid, violent spasms, and the exhaustion and collapse necessarily attendant on such a state; consequently, that the first indication would be, to restrain these depressing evacuations. The fact is, however, that vomiting and purging are amongst the least important symptoms of the present epidemic, though the appearance of the fluid evacuated is highly characteristic. Rice water strained and allowed to settle down, is, when shaken up, the best type. The evacuations, both upwards and downwards, either soon cease, or are easily repressed; while in many cases, and these the very worst, there are either none, or they are very trifling. It is the sudden paralysis and rapidly diminishing action of the heart, of the arteries and of the organs of respiration, with the stasis and thickening of the blood, the loss of the power to generate heat, that constitute the real danger of the first—the most fatal stage of this disease. Blue, black, flat lines,

mark the course of the larger veins; a deadly livor colours the skin; even the tongue is icy cold; the respiration is short, quick, and imperfect; the scrobiculus cordis and diaphragm drawn violently upwards and inwards; the pulse and voice extinct; the limbs and belly torn with spasms; the hands and feet shrivelled, corrugated, and much diminished in volume; the reason unimpaired. It would seem as if all the colourless cells and vessels, upon which the turgor or plumpness of the integuments so much depends, were squeezed to emptiness, and nothing left but the thickened colouring matter of the blood. If this state cannot be overcome in a very few hours, the sufferer must die. *Mordecki*, or *mort de chien*, or *mort noir*, would, either of them, be a much more appropriate name for this inexplicable malady, than that by which it is at present designated. I am now quite convinced that neither Celsus nor Sydenham ever saw this disease, else they surely would not have omitted *all the symptoms* that I have just enumerated.

It is in the above state, particularly if there be violent spasm, that the magisterium bismuthi has been found so serviceable, assisted by cordials, synapisms covering the whole belly, and frictions. Neither warm baths nor vapour baths will do. The body is warmed by them, as a dead animal would be, but the faculty of generating heat not being restored, the patient cools down rapidly again, and with increased debility. Opium appears really to be contra-indicated, unless to allay vomiting and spasm, which the bismuth effects much better; and calomel they have not ventured to give in large doses.

Two physicians, (Germans,) Ysenbeck and Brailow, stated publicly and firmly yesterday, in my presence, at the Medical Council, that during the preceding eleven days they had treated, at the Customhouse Hospital, thirty cholera patients, *of whom they had not lost one*. They give two table spoonfuls of common table salt in six ounces of hot water, at once; and one table spoonful of a similar mixture, cold, every hour afterwards. They always begin by bleeding.

But in the ordinary way of treating the disease: suppose the first stage safely past; very rarely indeed—not five times in the hundred—does the patient return to health without passing through

a dangerous fever, which not unfrequently assumes a typhoid character, with reddish-brown dry tongue; stupor; suffused eye; constipated and tender belly; dark sordes about the lips and teeth. The pulse, however, is generally quicker, and the skin hotter, than in primitive typhus. In this state many die from the fourth to the seventh day, and even later. In other cases the fever is benignant, and goes off within the fourth day by copious perspiration.

My object in entering into this detail is to warn you that many, and fatal cases of the present epidemic, may occur with little or no vomiting or purging. The shrivelling of the fingers and toes, the colour of the skin, the shrinking of the features, the coldness of the tongue, the feebleness or extinction of the pulse and voice, the rice-water evacuations when there are any, are the true marks of the disease, not to be mistaken.

A SHORT TREATISE ON CHOLERA.

We last week gave a few specimens of the mode in which cholera is contemplated by certain French writers. The following seems not unworthy of being preserved as a curiosity of the same kind: it is the most summary document on the subject we have seen—quite French—*à la bulletin*:—

(From the *Messenger des Chambres* of August 14.)

CHOLERA MORBUS.

The cholera of the ancients, the Chinese *holouan*, the Indian *maudechin*, the Persian *ouebb*, the Arabian *kouwa*, the *troussegalant* of France, and the cholera morbus which spreads its ravages over the north of Europe, are all one and the same disease.

Modified by the difference of climate and change of seasons, the cholera loses much of its violence in winter, and increases in summer. It may also exist in conjunction with other epidemic diseases, and occasionally render them so complicated, that the real character of the affection cannot be discovered, as has occurred at Warsaw, where the cholera commits less ravage than the typhus in our army. We have grounds for hoping that the severe discipline of our army, the exertions of the police in

our large cities, especially the excellent practice in our hospitals, both civil and military, will preserve us from this dreadful scourge.

The cholera morbus is not contagious, but so rapid in its effects that the slightest delay in checking its progress may lead to the most fatal consequences.

LABAT, D. M. P.

CAJEPUT OIL IN CHOLERA.

To the Editor of the London Medical Gazette.

46, Dover-Street, 17th August, 1831.

SIR,

My engagements will prevent me from forwarding to you this week, for insertion in your valuable journal, the details of the severest case of cholera (with collapse and spasms) which I ever witnessed, and to which I was summoned at a little before two o'clock A.M. on Thursday, the 11th instant. In its progress, one hundred and fifty-five drops of Cajeput Oil were given, within seven hours, in doses of twenty-five, fifty, forty, and again forty drops, in a little warm water, with the most satisfactory result: other medicines were employed, without advantage. The details of this interesting case I hope to be able to send you next week.

I remain, Sir,
Your very humble servant,
M. J. TIERNEY.

REPORTS OF CASES OCCURRING AT PUBLIC INSTITUTIONS.

MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY.

Cases treated by Mr. Hamilton, under the superintendence of Dr. Stokes; with Mr. Hamilton's remarks.

Diarrhoea after Ague.

MICHAEL FINNIGAN, aged 19, a labourer, somewhat emaciated, admitted into the hospital February 9, 1831, with diarrhoea, under which he has laboured three weeks.

His history is as follows:—During the months of August and September he worked in the fens, in Lincolnshire, and returned to Ireland in perfect health. About three weeks after his arrival he was seized with ague; the cold stage commencing in the morning, at ten o'clock, followed by hot and sweating stages. The fits recurred each day at the same hour. After remaining quoti-

dian for two or three weeks he got some medicine, which greatly diminished the severity of the ague, rendering it irregularly tertian and quartan, and each succeeding fit much less violent than the preceding one; influenced, however, a good deal in these respects by the weather. In spite of this amendment he continued very weak, and about three weeks since was attacked with the diarrhoea under which he now labours. It commenced with pains in the abdomen, followed by watery stools; four or five of which were passed in the day. At times the stools were bloody and mixed with mucus, particularly after irregularity in diet, or the use of ardent spirits or porter, the drinking of which last occasioned a feeling of soreness in the stomach and bowels.

Since the first appearance of the diarrhoea he has constant pain in the head, often severe griping pains in the abdomen, and occasional vomiting.

The fits of the ague occasionally recur; one of these he had last night. He has also a slight dry cough, worse at morning and evening, and sweats during sleep. On examining the abdomen, the liver can be felt in the upper parts of the right hypochondrium and epigastrium, over which the sound, on percussion, is dull, the dulness extending upwards, to within a short distance of the right nipple. The spleen also can be felt in the left hypochondrium, a short distance beneath the ribs. The rest of the abdomen, which feels soft, is painful on pressure, particularly in the umbilical region. In the chest, the sound over the left clavicle, and some way beneath, is dull, and respiration feeble. Pulse full, and slow; tongue covered with white fur, red at tip.

Ordered mucilaginous drinks. *Hirud. xii. abdomini. Enemata Opiatum duo.*

10th.—Rep. Hirudines. *Enema Opiatum unum. Pot. Muc.*

12th.—Feels better; countenance much improved, having lost the dingy yellow hue it had on admission; belly less tender; purging stopped.

Rep. *Enema et Potus, Vesicat. Abdomini et*

R Pulv. Dov.

Hyd c. Cretâ. aa. gr. iiii.

Omni tertâ horâ.

18th.—No pain any where, but some slight tenderness in the epigastrium. No stool yesterday. Pulse regular; tongue loaded.

Rep. Med.

21st.—Got up yesterday, and felt pretty strong. No headache; no pain or tenderness in abdomen, in which the spleen cannot be felt; appetite and sleep good; no sweating; pulse slow and soft; tongue loaded. No medicine.

24th.—Experienced a feeling of cold at the stomach, with a dull pain in the loins and an inclination to stretch—symptoms he states always to have preceded a fit of the ague.

Rx Pil. Hyd. gr. ii.

Sulph. Quin. gr. i. M. bis in die.

A few days after, he was dismissed, perfectly cured.

REMARKS.—The length of the latent period of the ague in this case is very curious, a month having nearly elapsed after exposure to the marsh-miasm before the disease shewed itself. Dr. Marsh, in his paper on the origin of fever, remarks that he has known the latent period even longer than this; Irishmen, as in the present instance, labouring in the fenny districts in England, and exposed to the malaria, not shewing the disease till months after their arrival in this country. The difference in the length of the latent period he considers to be greatly influenced by the presence or absence of exciting causes.

The ague, in this case, came on in the latter end of autumn, and appears, from the patient's own account, to have been of the quotidian type—an unusual one for such a time of the year. The treatment, some time after its first appearance, altered the type, and lessened the severity of each paroxysm, alleviating but not removing the disease. In this state of irregular intermittent, exposed, as this patient must have been, to the inclemencies of the weather and irregularities of diet, it is not too much to suppose that the constantly recurring periodical congestions, which pathology shews to be a character of this disease, at length produced a permanent congestion of the abdominal viscera. In such a state, and in such a subject, an exciting cause would not be long wanting to throw the stomach and bowels into a state of inflammation, producing the symptoms laid down in the case; the diarrhoea, the passage of mucus and blood, and the seat of the tenderness, rendering it probable that the lower intestines were chiefly engaged. Examination shewed the liver and spleen to be in a state of congestion. The headache was most likely only sympathetic.

Considering the diarrhoea in its true light, of only a symptom, and setting aside entirely the empirical use of astringents, Dr. Stokes applied his remedies to the gastro-enteritis, and the case shows how successfully; the diarrhoea not only being subdued in a very short time, but the congestion removed from the stomach and spleen. After the subsidence of the inflammation of the bowels, some symptoms of a recurrence of the ague were speedily stopped by small doses of quinine.

The effects of the stimulating articles of diet, as mentioned in the case, strongly point out the necessity of carefully withholding them in this disease.

Dysentery.—Exhibition of Strychnine.

Bernard Neil, *stat.* 60, a woollen spinner, florid complexion, of temperate habits, but a great tea-drinker, was admitted on the 1st of March, 1831. Has been subject to periodical attacks of looseness in the bowels for the last thirty or forty years, generally occurring in the spring; also to attacks of asthma. Ten days since, after walking several miles, exposed to a cold wind, felt unusually fatigued, with pains and stiffness in the limbs, and next day was seized with pain and distention of the stomach. The pain gradually extended to the bowels, having the character of severe griping, worse round the navel. The abdomen was not swollen, but very tender to the touch. On going to stool, he passed nothing but mucus and blood, with tenesmus; afterwards, the stools became watery, occasionally, however, mucous, tinged with blood. He lost his appetite, and had foul taste in the mouth. Two days after the illness commenced, he took castor oil with some relief, and afterwards infusion of bark, which restored his appetite; but the looseness continued much the same. On Saturday last the tenderness of abdomen, which had been considerable, left him.

At present he passes eight or ten stools in twenty-four hours, each preceded by a griping pain in the lower bowels. The abdomen feels soft and flaccid, and is not in the least tender. No enlargement of the liver or spleen.

Some of the periodical attacks to which he is subject have been more severe than the present. He is also liable to a bowel complaint on eating fresh meat, as mutton, beef, &c. and therefore generally confines himself to the use of bacon, salt pork, &c. Pulse hard and full; tongue white; urine scanty.

After the application of leeches to the abdomen, followed by a blister and opiate enemata, had been tried with some profit, Dr. Stokes considered it a fair case for the trial of strychnine. He was accordingly put on the one-sixth of a grain in the course of the day, increased in the course of a week to half of a grain, with considerable advantage, the number of stools diminishing, and his constitution improving. He left the hospital, however, prematurely, for fear of fever.

APOTHECARIES' HALL.

Names of Gentlemen to whom the Court of Examiners granted Certificates of Qualification on Thursday, August 11, 1831:—

Isaac Brooke.	William John Little.
John Mavor Brown.	Wm. Ralph Milner.
Joseph Chattaway.	Joseph Neville.
Peter Hood.	

W. WILSON, Printer, 37, Skinner-Street, London.

THE
LONDON MEDICAL GAZETTE,

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OF
Medicine and the Collateral Sciences.

SATURDAY, AUGUST 27, 1831.

CAJEPUT OIL IN CHOLERA.

To the Editor of the London Medical Gazette.

SIR,

I AM induced to forward you the two following cases, as I think they fully illustrate the efficacy of the cajeput oil in the present epidemic (cholera), and may prove an interesting postscript to the promised communication of Sir M. Tierney.

(Saturday). August 20, 1831.—Hannah —, aged 50, housemaid, is subject to dyspepsia, but has been well until between seven and eight this evening, when she was seized suddenly with considerable abdominal pain, diarrhoea, and vomiting. I was called to her about ten, and found the vomiting severe and incessant, of a clear transparent mucus. Bowels purged five times; motions dark, fluid, and offensive; pain of abdomen intense, with much tenderness, and the muscles apparently in a state of cramp, or spasm; extreme anxiety; cold clammy perspiration; pulse very weak, about eighty. I prescribed as follows:

R Olei Cajeputi guttas, xl.
Magnesiae Subcarbonatis, ℥j.
Aque Pur. ʒiiss. M. f. haustus stat. sum.

11 o'clock.—The relief from the medicine has been decided; to use my patient's words, "to perfection." The vomiting and pain in the bowels have subsided, and she complains only of being very weak and cold.

R Ol. Cajeputi guttas, xl.
Magnesiae Subcarb. ʒss.
Aque Puræ, ʒvj. M. f. mistura sumat
4tam partem 2dis horis.

195.—VIII.

August 21st.—This morning I find my patient free from complaint; she will continue the medicine at longer intervals. She has had an alvine evacuation during the day, of a natural colour.

Sunday, Aug. 21st.—About ten o'clock this evening I was sent for to Mrs. H. aged 35, about five months advanced in pregnancy. I found her complaining of excruciating abdominal pain, with vomiting of clear transparent mucus, and frequent purging; her pulse very weak, 75. She had taken about two table-spoonsful of brandy about half an hour previous to my visit, but this was instantly rejected by the stomach. The tenderness on pressure over the abdomen was so exquisite, and accompanied by pregnancy, that, had it not been for the experience of last night, I certainly would have bled largely. I determined, however, on giving the oil cajeputi, in the dose of forty-five drops, combined with twenty grains of magnesia, in water. I saw my patient again at eleven. The effect of the medicine has been very beneficial; the pain had much subsided, and the stomach and bowels were quiet. I have directed fifteen drops to be taken every two hours during the night.

August 22d.—This morning I find her full of spirits, having taken three doses of the medicine.

The cajeput oil may be most gratefully administered combined with magnesia, which has the property of diffusing or causing essential oils to dissolve in water, and which, in the opinion of Annesley, has a certain degree of power itself over the stomach, in cases of cholera. I am disposed to think that the cajeput has some influence over the

2 X

symptoms of the present epidemic; but that it has more than many other volatile oils (more especially peppermint), remains, I think, with Dr. Macleod, in your number of the 13th of this month, to be proved. I remember reading in Johnson's Medico-Chirurgical Review, some years ago, accounts of its very great efficacy in the treatment of the Indian cholera; but, from want of an Index to that truly valuable periodical, I cannot place my hand on the number, but so far as I can charge my memory the doses were large—about one hundred drops. So much has been said, and from such high authority (Sir M. Tierney), on the powers of the cajeput over cholera, that the drug monopolizers are at work, and its price has fully doubled within the last fortnight.

THOMAS BUSHELL.

117, Crawford-Street,
Portman-Square.

REMARKS

ON THE

GOOD EFFECTS OF CAMPHOR AS A LOCAL APPLICATION IN SOME DISEASES.

"The effects of remedies on a disease, if accurately observed, form the most important part of its history; they are like chemical tests, frequently detecting important differences in objects which previously appeared exactly similar, &c. It appears to me that symptoms and dissections cannot settle the question, &c."—*Gooch on Pertussis Fevers.*

*To the Editor of the London Medical
Gazette.*

SIR,

I HAVE been accustomed for some few years back, in cases of croup, to apply externally to the throat, on flannel, a strong solution of Camphor in spirits of wine.

Sp. Vin. Rec. ʒi. Gum Camph. ʒss.

The effect of the application has been to allay almost instantaneously the spasmodic action, and to afford convenient time for the exhibition of constitutional remedies. I saw the application give immediate relief in the case of a child, between four and five years of age, where the attacks of spasm were very frequent, and so violent as to force

the little sufferer, in his struggle for existence, to leap with almost supernatural strength from his bed to the ground. I have used the same application in irritation of the trachea, with decided benefit; and in one instance, by its immediate application, have rescued a patient from attacks, which had often previously threatened her with consumption in their progress. I have lately applied it over the whole abdomen with decided benefit in two cases in which, from the continued and improper use of mercurial, and purgative medicines, the gastric nerves had acquired such exquisite morbid sensibility as produced, in certain stages of the digestive process, a degree of constitutional irritation that temporarily deranged every function of the body, and led in one instance to a slight apoplectic seizure. The marked and immediate benefit its application produced in a case of puerperal fever, leads me to offer you its history somewhat in detail.

A woman, about thirty years of age, in the eighth month of her pregnancy, received a severe kick from a horse in the abdomen. A great deal of indisposition followed, but labour did not commence until the natural period: the patient was under the care of the parish midwife from the commencement of her labour until the fourth day. The pains had been constant and severe, but ineffectual; the waters were discharged, whether by accident or design I never could discover.

On my first visit, I found the os uteri dilated, so as to admit two fingers, the child's head presenting, resting on the brim of the pelvis. I advised her to remain quiet; to discontinue stimulants and exertion, both of which had been used without mercy. In twenty-four hours the child's head had made some little progress through the pelvis. As her powers did not appear to be greatly diminished, I still declined interfering. From the time I left her, her sufferings became tremendous; dreadful cramps seized her limbs on the accession of each uterine pain, checking its power and duration. Such had been the state of things for some hours. On my next visit, I found the head of the child was advanced to about the centre of the pelvis; the woman was much exhausted; pulse 120. The ergot of rye was now administered with very good effect, as, on my next visit, (the interval about

three hours) I found the head of the child had so far advanced as to leave a space that would easily admit my finger between it and the perineum. In a short time the pains again decreased in strength and frequency. The exhausted and suffering state of my patient led me to determine on the immediate application of the forceps, and I extracted a child, which I had every reason to suppose had been dead about a fortnight. Nothing unusual occurred until the night of the second day subsequent to her delivery, when she had frequent vomitings, with intense pain in the abdomen, which gradually became tumid and exquisitely tender. I was not made acquainted with this change until the morning. I found her with the abdomen as distended as before delivery; great prostration of the vital and voluntary powers; pallid countenance, marked by inexpressible anxiety and suffering; pulse ranging between 130 and 140, not easily compressible; apparently choked with flatulence, which appeared occasionally to induce vomiting, that aggravated her sufferings dreadfully; no rigor had ushered in the attack. The following medicines were ordered her, and a piece of flannel, which covered the whole abdomen, loins, and part of the back, was soaked with the embrocation.

R Pulv. Rhei. ʒj. Aquæ. Puræ, q.s. ft. pilul. ij. stat. sumend.—4ta. quaque hor rep.

R Potass. Carbon, ʒss. Sp. Ether Nit. ʒj. Tr. Hyos. ʒss. Tr. Amm. c. gtt. xlv. Mist. Camph. ʒj. M. ft. haust 4ta. quaque hora sumend. c. suc. limon.

R Camph. Gum, ʒij. Sp. Vin. Rect. ʒiv. Tr. Opii, ʒij. M. ft. Embroc.

In about two hours from the application of the remedies, she fell into that frightful state of nervous disorder, of which Dr. Armstrong has given us such a vivid picture in his treatise on the Puerperal Fever: he says, "the light wanderings of the mind were succeeded by a low muttering delirium, speedily followed by a stupor, in which the patients lay with their eyes half closed, and could not be roused from it but by loud speaking, upon which they started as from a disturbed sleep, uttered some vague and hasty expressions, and then sank into the same condition as before." The attendants, alarmed at this alteration, sent for me. A gentleman residing with me visited her in my absence, and

abstracted about twelve ounces of blood, which was strongly buffed and cupped. She gradually recovered from this state of stupor, and he left her with the abdomen dreadfully tender, and as prominent as before delivery; the pulse ranging at 130.

I again visited her in about three hours: during this interval the embrocation had been reapplied. I found the swelling of the abdomen perfectly subsided, though it still remained exceedingly sensible to pressure; the pulse 120. She had again sunk into a state of stupor; her appearance was that of a corpse; and in addition to a variety of symptoms which Dr. Armstrong has so accurately described, her respiration was scarcely observable: no evacuation had been procured from the bowels. I directed the medicine to be continued, and ordered a purgative enema to be injected. In the course of the night the bowels were copiously relieved, the state of stupor passed away, and she slept quietly at intervals. In the morning there was no tension of the abdomen; pulse 100. The countenance had lost its anxious expression. I directed five drops of the Liq. Opii Sed. with ʒj. of Sp. Ether Nit. to be given every six hours, and continued the usual nourishment (gruel, with spice and brandy.) From this time until the present moment (a period of six days) she has continued slowly to recover.

It is not my intention to lengthen this history, by detailing the progress of convalescence; it is sufficient to say, that difficulties were encountered and overcome by a mode of treatment, the object of which was to allay irritation, and to support the powers of the system; my only wish is to convey to you a faithful picture of the severity of the disease, and to point out the rapid subsidence of the abdominal swelling on the application of the camphor, and the consequent mitigation of every symptom which appeared to threaten her existence.—I am, sir,

Your obedient servant,

HENRY GEORGE.

Phillemore Place, Kensington,
August 16, 1831.

PATHOLOGY OF CONTAGIOUS DISEASES.

To the Editor of the London Medical Gazette.

SIR,

IMRESSED with the importance and necessity of acquiring ideas as accurate as possible in pathology, and convinced that in order to accomplish this we have much to unlearn, I am induced to submit the following suggestions to the notice of your readers.

Medical practitioners have probably always been more influenced by opinions than by facts, and adhere to the notions of talented individuals, with all the partiality of cherished prejudice. We are prone to receive the dicta of those authorities to whom we look with confidence for accurate views and appropriate modes of treatment; and if these individuals have formed and promulgated imaginative theories, destitute of the solid basis of observation, the influence they may exert on our minds, and the bias they may give to our practice may be incalculably dangerous. One professor, to whom I have often listened with delight, and whose powerful eloquence would equally have fitted him for the bar or the senate, traced all diseases to the liver, and believed all his patients to labour under hepatalgia, hepatagra, or hepatitis. His catholicon was calomel, by which he sought to remove complaints which often existed not in the body of the patient, but in the fertile imagination of the physician; and although the diagnosis he had formed was not unfrequently falsified and contradicted by postmortem examination, he adhered to his opinions to the last. Another eminent and eccentric individual, by whose death the profession has been deprived of one of its most successful cultivators, and whose talents have much contributed to elevate a neighbouring school to its present distinguished rank, considered all diseases to be occasioned by derangement of the stomach and chylopoietic viscera, an opinion which led him to adopt a most compendious method of prescribing, and an easy system of therapeutics. Without the investigation of symptoms, external or internal, the same prescription, diet, regimen, and directions, were thus deemed equally applicable to one patient or one hundred, and capable of alleviating any class or species of disease in Cullen's nosology. It cannot

be disputed that the regulation of the diet, and of the alvine excretions, are essentially requisite to the successful treatment of any disease, and that solids and fluids, received into the stomach, which we measure by pounds and ounces, will be as likely to influence the health as those divided by grains or scruples; and Mr. Abernethy has, I conceive, deserved well of the profession for having more particularly called its attention to circumstances, from the neglect of which the most judicious medical treatment of internal, and probably of many external diseases also, must prove unavailing.

Ancient writers, to whom the important physiological truths, developed by experiment, were unknown, were most acutely observant of the external phenomena of disease, and possibly in some instances correct in their opinions as to its nature and origin. The utter neglect of their writings by modern practitioners is by no means a proof that they are valueless, for there may exist in the human mind a prejudice in favour of novelty, which is as likely to mislead the judgment as the blindest and most uninquiring adherence to obsolete authorities; and that pathology has not been so successfully cultivated as other branches of natural science far less important, is incontrovertible. The properties and constituent parts of the blood, and the changes which it undergoes from respiration, have been investigated and explained by our countrymen with a degree of exactness and perspicuity which entitles them to the gratitude of all who are interested in the extension of physiological discovery, and to trophies affording more permanent and real glory than those of laurelled conquerors, the spoilers and scourges of the human species, who have wasted oceans of the vital fluid.

Our acquaintance with the properties and chemical changes of the blood is not so perfect but that there remains much for future experimentalists and inquirers to discover.

I think it indisputable that it undergoes other changes equally important with those already explained, though not so obvious to our research, and not appreciable by any mode of investigation hitherto proposed. After bleeding several patients, we shall find well-marked differences in the appearance of the blood drawn; its colour, density, and specific gravity, will not be precisely similar in any two specimens

and if we wait until coagulation has taken place, the difference will be still more decidedly apparent. Some of these varieties doubtless originate from the more or less perfect arterialization which it has undergone, or on the presence of inflammatory action; but these examples are only some of a multitude of changes of which it may be susceptible from having absorbed morbid agents of too subtle a nature to be discovered otherwise than by their subsequent effects on the constitution, and the diseases produced by their influence; nor can we imagine that this fluid should undergo any without occasioning the most important consequences to the general system. The coagulable lymph separated when inflammation exists, is a phenomenon by which, in conjunction with other circumstances, we judge of its presence. This additional supply is probably one means by which nature arrests increased action, and preserves the constitution from the disease becoming generally diffused. During pregnancy the same circumstance obtains, and coagulable lymph is separated in greater proportion than at other times, to provide for the growth of the ovum, to secure its attachment to the uterus; and subsequent to parturition, this peculiarity must render the blood more speedily coagulable, and thus tend with greater certainty and effect to close the uterine vessels, and in conjunction with the contracted state of the uterus, to prevent the danger of hæmorrhage after the expulsion of the ovum. Besides these alterations in the blood arising from circumstances within the body, it is highly probable that it may undergo changes produced by the absorption of injurious matters from without; hence all those formidable and fatal diseases excited by contagion, so little understood, and influenced so little by medical treatment, dictated by a system of pathology, which confounds the effect with the cause, and possibly mistaking the one for the other, is often calculated not to cure the disease, but to destroy the efforts made to remove it from the system; hence also the necessity of extreme caution in the use of measures which diminish the powers by which nature seeks to secure the patient's safety; and increased action, whether general or local, may be in these instances a necessary process or an effort of nature to relieve herself of local congestion, to establish and restore discharges which

may have been checked or suppressed, or a salutary and essential effort of the *vis medicatrix naturæ* to rid herself of something possessed of irritating and injurious qualities. Judging from the symptoms developed early in many contagious diseases, we cannot entertain a doubt that the miasma may be received into the system in a state of such extreme activity that its powers are at once depressed, that this curative re-action cannot be accomplished, by which, in more sthenic diseases arising from miasmata, the morbid agent is eliminated and removed. In small-pox, scarlatina, measles, and some other forms of disease, the circumstances to which I refer are obvious to our senses, in consequence of the contagious matter being thrown out by the skin, and for its removal a certain degree of increased action is in all cases a requisite condition. In other diseases of miasmatic origin, although we are not in every instance able to discover the outlet by which the morbid agent is expelled, but which is probably the surface of the body, we have sufficient reason from analogy to believe that the same febrile excitement must necessarily take place, and that their most fatal and intractable form does not result from a high degree of inflammatory action, but that the patient may be in some instances lost for want of it. In such cases, the local abstraction of blood may possibly be in a few cases admissible, where congestion exists in important organs; but if this, or any other means of active depletion be indiscriminately employed, the event will prove that the measures adopted have effectually combated, not the patient's disease, but the actions by which nature has sought in vain to eradicate it, and to secure his recovery.

CHARLES SEVERN.

Jewin-Street, Aldersgate-Street.

ON THE

PHYSALIS PELAGICA (HOLOTHURIA
PHYSALIS, Lin.)

With Observations on its Stinging Property.

By GEORGE BENNETT, Esq.

(With an Engraving.)

THIS beautiful mollusca inhabits the seas of the tropical regions, and when first removed from the water excites the admiration of the spectators by the ele-

gant and vivid colours with which it is adorned. These tints, however, are as evanescent as they are brilliant; and soon after this animal is captured from the sea, the crest sinks; the bright crimson and purple tints lose their brilliancy, and the beauty which had previously excited so much admiration, is lost.

The genus *physalia* (physalie) is thus defined by Lamarck (sur les Animaux sans Vertèbres, tom. 2d, p. 478). *Corpus liberum, gelatinosum, membranosum, irregulare, ovatum, ad latera subcompressum, intus vesiculosum: dorso subcristato; ventre tentaculis variis instructo.*

Tentaculi numerosi, varii, inæquales; alii filiformes interdum longissimi; alii breviores et crassiores.

Os inferum subcentrale.

Body flexible, gelatinous, membranous, irregular, ovate, a little compressed on the sides, vesicular interiorly, with a crest on the back; and numerous tentacles situated at the base. The tentacles are numerous, of different kinds, some being filiform, varying in length, others shorter and thicker. Mouth situated inferiorly and subcentral. The species are the *physalis pelagica*, *P. tuberculosa*, *P. megalista*, *P. elongata*, and are thus described by Lamarck:—

1.—*Physalis pelagica* (physalie rougeâtre.)

Phy. ovata, subtrigona, cristâ dorsali prominente subrubellâ venosâ. Inhabiting the Atlantic Ocean, Gulf of Mexico, &c.

2.—*Physalis tuberculosa* (physalie tuberculeuse.)

Phy. irregularis, ovata, obsolete cristata; extremitate anteriore tuberculis, cœruleis, seriatis, confertis. Inhabiting the Atlantic Ocean; and Lamarck observes—"elle a une rangée de tubercules d'un beau bleu à son extrémité antérieure, et sur son dos une crête aigue, mais médiocre."

3.—*Physalis Megalista* (physalie bleu.)

Phy. ovata; extremitate anteriore longiore rectâ rostriformi; cristâ prominulâ plicatâ. This animal is the physalis megalista of Peron and Le Seur, (Voyage 1, plate 29, f. 1.) Inhabits the Southern Atlantic Ocean.

4.—*Physalis Elongata* (physalie allongée.)
utrinque

risontalis. Inhabiting the gulf of Guinea.

These molluscs are known among our seamen by the name of the "Portuguese men of war;" and galere, or frigate among the French, from its appearing like a small vessel, resting tranquilly on the surface of the water during a calm, at which time it is more readily discerned than during strong breezes. The species now more particularly under observation is the *holothuria physalis* of Linnæus, the *physalis pelagica* of Lamarck. The figure of the animal is somewhat ovate, and the upper portion resembles an inflated bladder, rounded at one extremity, and with a beak-like projection at the other; on the summit or back is a crest or ridge, slightly elevated, and sulcated and fringed at the edges; the whole of this part of the animal is of a light blue colour, tinged with brilliant crimson. I found the bladder to be filled solely with air. I have frequently heard it asserted that the animal has a voluntary power of collapsing the bladder on the approach of tempestuous weather; or, to use a nautical expression, "furls all sail," and then sinks to some depth. I am not aware on what authority this assertion rests; it is more probably a "seaman's tale" than the result of a naturalist's observation. On examination, no apparatus is found by which such an effect could be produced, and if it actually has such a power, why is it not exercised in every moment of peril? Why does it not, like the argonauta, collapse and sink on the approach of danger? When we approach the animal to capture it, or when it has been taken from the water, no such change takes place; the bladder still remains inflated, and can also be preserved in that state; and during a strong breeze, I have seen them floating on the waves, but from the ship passing at that time rapidly through the water, they are then more rarely observed. I have also seen them thrown in tempestuous weather on the beach at New South Wales, the bladders remaining always inflated. From these, and other reasons which might be adduced, the assertion cannot be considered as the result of actual observation. The inflated membrane is probably intended to keep the animal buoyant on the water, by which it is readily enabled to extend its long tentacles in search of prey, or it may be designed as a locomotive agent, aid-

ing the animal in its progress over the "vast bosom of the ocean;" thus serving the purpose of a sail. It is said that the appearance of the physalia near the sea-coast is the indication of an approaching tempest.

Respecting this genus, Lamarck observes, that "la forme irreguliere, la crête dorsale, et les tentacules très long et pendans qu'elle a sous le ventre, la distinguent éminemment des velleles. Par cette même crête et par son intérieur vésiculeux elle diffère de toutes les medusaires connues*." Situated at the under part of the animal is a mass of tentaculæ, some long and filiform, others short and thick, each apparently consisting of a chain of globules, filled with an extremely acrid fluid; in colour they are of a beautiful purple, with an admixture of crimson, and they are covered by a glutinous substance, having a peculiar odour. Lamarck observes, that "la bouche des physalies est inférieure, sans être tout-à-fait centrale. Les tentacules qui l'avoisinent ou l'environnent, et qui conséquemment sont situés et pendans sous le ventre de l'animal sont nombreux, très inégaux, et de diverses sortes. Les uns sont plus courts, plus épais, et paraissent terminés en sucoirs; les autres sont fort longs, filiformes, comme ponctués par la diversité de leurs couleurs locales; car ils sont vivement colorés de différentes manières, et il y en a de rouges, de violets, et d'un très beau bleu. Leur crête dorsale est aussi très vivement et agréablement variée dans ses couleurs."

I caught a fine specimen of this mollusca in latitude 9° 0' South, and longitude, 12° 59' West. Being aware of the sting existing in the tentaculæ, I was desirous of trying its effects on myself, for the purpose of ascertaining from personal experience the constitutional irritative effects resulting from it. On taking hold of the animal, it raised its tentaculæ and stung me on the second and ring fingers. The sensation was similar at first to that produced by the nettle; but before a few minutes had elapsed, a violent aching pain succeeded, affecting more severely the joints of the fingers, the stinging sensation at the same time continuing at the part first touched. On cold water being applied, with the intention of removing or lessening the pain, it was found rather to increase

than diminish the painful effects. The irritation resulting from the poisonous fluid emitted by the animal extended upwards, increasing in extent and severity (apparently acting along the course of the nerves), and in the space of a quarter of an hour, the pain in the forearm (which was more particularly referable to the inner part) was very violent, and at the elbow-joint it was still more so. It may be worthy of remark, that when the joints became affected the pain always increased. The pain became at last almost unbearable, and was much increased on the affected arm being moved; the pulse of that arm was also much accelerated, and an unnatural heat was felt over its whole surface. The pain extended to the shoulder-joint; and on the pectoral muscle becoming attacked by the same painful sensation, an oppression of breathing was occasioned, which we find produced in a similar manner by rheumatism, when it attacks that muscle; and it proved very distressing during the time it remained. The continuance of the pain was very severe for nearly half an hour, after which it gradually abated, but the after-effects were felt during the remainder of the day in a slight degree of numbness and increased temperature of the arm. On this offensive power of the animal, Lamarck observes, that "lorsqu'on touche ou que l'on prend un de ces animaux avec le main, il repand une humeur si subtile, si pénétrante, et en même temps si veneneuse ou si caustique qu'elle cause aussitôt une chaleur extraordinaire, une démangeaison et même une douleur cuisante, qui dure assez long temps*." About two hours after I had been stung, I perceived that a vesicle had arisen on the spot; and when children have been stung, I observed that numerous small vesicles arose, similar to those produced by the nettle. The intensity of the effects depend on the size and consequent power of the animal; and after it has been for some time removed from the water, it is found that the stinging property has diminished. This irritative property, unattended, however, by any of the constitutional effects, remains for a long time in the tentaculæ, even after they have been removed from the animal, for in touching a handkerchief some weeks after it had been used in wiping off some of the portions of the

* Sur les Animaux sans vertèbres. Tom. II. page 480.

* Sur les Animaux sans vertèbres. Tom. II. page 480.

tentacles, the stinging property was found to have remained, although it had lost that virulent quality which produced on a recent application such violent constitutional irritation. Dr. Clarke Abel, when off the great Lemna island, experienced an attack from a species of physalia which (although from his description it was of very diminutive size) produced severe symptoms, he thus mentions the circumstances. "Whilst employed in collecting some sea-weed floating about the ship, I observed a species of physalia, so small and transparent, that I at first mistook it for an air-bubble; but on catching it in my hand, was soon convinced of my error, for wrapping its long tendrils round one of my fingers, it stung like a nettle, but with much more severe effect. In about five minutes, the pain in my finger abated, but an uneasy sensation extended up the inside of the arm, which soon terminated in an aching pain in the armpit, accompanied by a sense of restriction within my chest: within fifteen minutes all uneasiness ceased. The manner in which the animal produces these effects is, I believe, unexplained; but it is not improbable that they are occasioned by a peculiar poison, secreted by it, and contained in a glutinous matter, which covers its tendrils; as this, when applied to the skin, apart from the animal, excites a smarting pain*." This poisonous quality does not, however, exist solely in this species of mollusca; several of the medusæ have similar properties, which may, perhaps, be considered as both offensive and defensive; and it has been, and no doubt correctly, supposed to be given to these animals as a means of procuring their food, the benumbing principle existing in the tentacles rendering their prey when touched unable to escape. For what purpose this offensive, or perhaps defensive property, exists in the vegetable kingdom, it is difficult to decide, and all that has yet been said on the subject may be considered as merely hypothetical: for instance, at the Island of Singapore there is a remarkable species of the order Fuci, usually found growing in isolated patches upon coral banks. Finlayson thus mentions it. It is pinnated, plumose, elegant, about a foot and a half in length, and of a

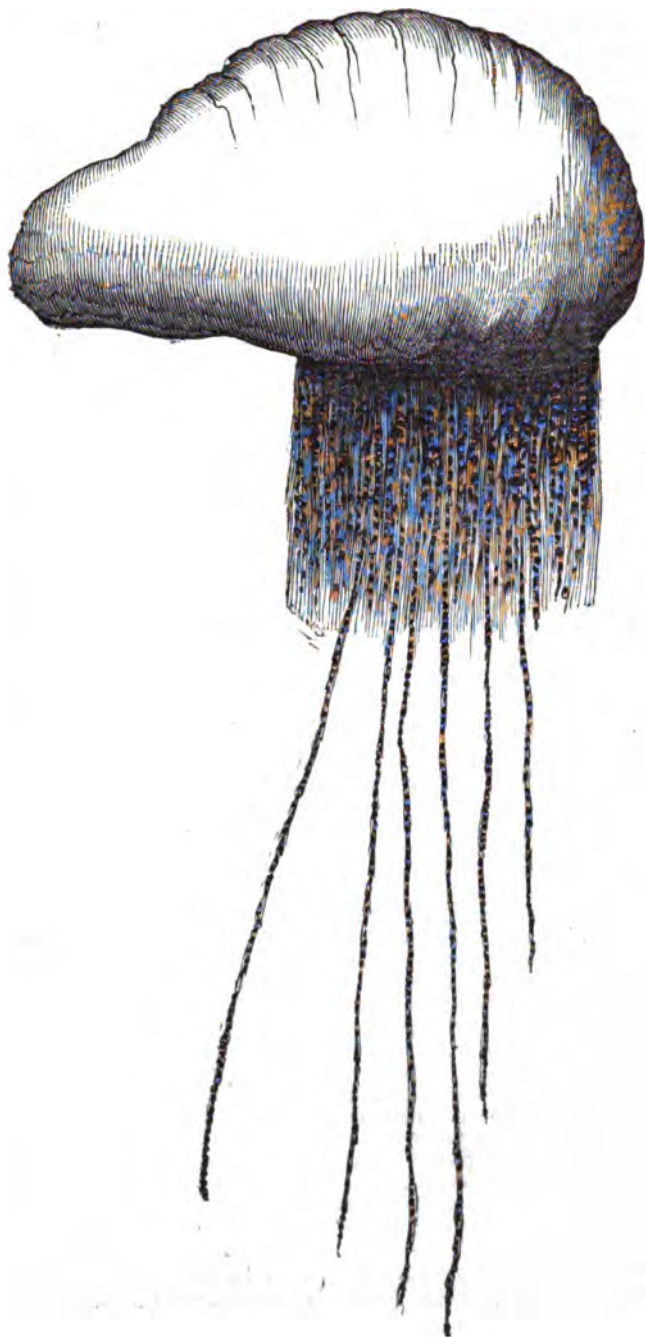
whitish colour. It is endowed with a property of stinging like nettles; the sensation produced is more acute and more penetrating, more instantaneous, but somewhat less permanent. The hand is scarcely brought into contact with it, before the wound is inflicted. A small, corrugated, granular bag, filled with a transparent fluid, would seem to be the organ by which it produces this effect. These are no sooner touched than they discharge the fluid they contain. The plant soon loses this power after being removed from the water." This plant seems, therefore, to possess an offensive or defensive property, analogous to that of the physalia, but for what purpose it is difficult to form an opinion.

The usual method adopted for the preservation of this curious and beautiful mollusca, described in this paper, is by placing it in spirits; the form is thus well preserved; but its beautiful colours, the subject of so much admiration, are totally lost. Several fine preparations in spirits are in the museum of the Royal College of Surgeons in London. As in the case of the beautiful but evanescent colour of flowers, no method has been discovered by which their natural brilliancy can be preserved, and it is impossible to retain that peculiar brightness given only by life and health. I have lately preserved the physalia in the following manner*: I at first detached the whole of the tentacles from the membranous portion of the animal, on account of their being too soft and perishable to enable them to be dried *en masse* with any chance of success, their *form* only being preserved well in spirits; the membranous, or inflated portion of the animal is then punctured, by which the air contained in it escapes; being then pressed between sheets of paper, (which are to be renewed as often as required until it is dry) the form of the upper portion of the animal (making a lateral view) is well preserved, and some faint portion of the colours remain. This being gummed on paper, resembles a drawing, and the original colours being imitated by the pencil, and the tentacula, drawn and coloured, the *tout ensemble* conveys an idea of the brilliant appearance of the animal, as far as can be pro-

* Abel's Narrative of a Journey in the Interior of China, and of a Voyage to and from that country. 4to. page 59.

* A specimen preserved after this manner was laid on the table of the library of the Royal Institution during the evening conversations of June 10, 1831.

duced by artificial colours. The annexed drawing was made from one pre- pared after the manner just described. It is, indeed, only by repeated trials that



the best and most accurate methods of preserving objects of natural history can be discovered, the greatest and sole difficulty existing, being that of preserving them accurately in their natural appearance.

London, August 10, 1831.

OBSERVATIONS
ON THE
SEEDS OF A SHRUB OF THE NATU-
RAL FAMILY COMBRETACEA,
(Probably a *Combretum* or *Quisqualis*,)
POSSESSING VERMIFUGE PROPERTIES.

BY GEO. BENNETT, Esq.

Corr. Mem. of the Medico-Botanical Society of
London, &c. &c.

As observations on any new production of the vegetable kingdom possessing medicinal properties cannot be uninteresting to the medical profession, I am induced, under this impression, to give publicity to the following brief remarks on a shrub, a native of the Philippine Islands, the seeds of which have vermifuge properties. It is not, however, "transient visitors," anxious as they may be, or whatever enthusiasm they may evince in scientific pursuits, by whom extensive information can be collected, respecting the actual value of the reputed properties (whether medicinal or otherwise) of certain plants. It is from those individuals (more particularly of the medical profession) resident abroad, that we ought to look for new discoveries, as well as for the confirmation, by repeated trials, of the advantages to be derived from those, the properties of which are but as yet imperfectly known, and also to ascertain whether their medicinal powers are such as to render them a valuable addition to our materia medica. Endeavours should also be made, if the seed or plant is the growth of a distant clime, of discovering a method of preserving to countries far remote the seeds, or any other portion of the plant in which the active principle is resident; for, doubtless, many worthy of high consideration have been too hastily rejected, as not possessing the valuable properties attributed to them, solely from the circumstance of the active principle having

from time or other causes become inert. In the native country of the plants the best opportunity also exists of ascertaining the full effect of their medicinal or other properties from recently gathered seeds or leaves, attention being directed also towards the season during which the latter more particularly ought to be collected. It is from our colonial surgeons that we ought to expect information to be elicited, not only of the virtues assigned to the various medicinal plants scattered over our extensive foreign possessions, but in other branches of natural history; and it is much to be regretted that so very few devote a leisure hour to those objects, which, by a numerous collection of facts, would confer a lasting benefit to science, and prove a frequent source of recreation to themselves.

It was to me a subject of regret, that I was unable to ascertain, by actual inspection, or procure specimens of the shrub, yielding the seeds now under observation, which, during my visit to Manilla, (during the months of July, August, and September,) was unfortunately dried up. It was described to me as being a shrub, attaining the height of from four to five feet, a native of the island of Luçonia, and others of the Philippine group. It is to be found in flower and fruit during the months of January, February, March, and April: during the two latter months the fruit is to be found in a mature state. The remaining months of the year the shrub is dried up. From the fruit (of which the following cut shows the form) alone an



opinion can be formed of its family and probable genera, and from these it is considered to be of the natural family Combretaceae; probably a *Combretum* or *Quisqualis*, and from the description of the shrub, it may more readily, perhaps, be placed to the former. The medicinal property it possesses is that

of a drastic purgative, acting as a powerful vermifuge for children, but seldom or never used for adults, on account of the large quantity requisite to produce sufficient beneficial effects. The shrub and seeds bear the appellation of "liñugans," in the Tagalo, or native language; and "piñones," in the Spanish. They are administered by the outer shell being broken, the kernel extracted, and then given to the patient to be eaten; and as the flavour is not unpleasant, children make no objection to them. The dose for a child five years of age is from four to six in number (without any regard to weight,) which is increased or diminished according to the age of the patient: if the first dose has not the desired effect, it is to be repeated on the following morning. It was mentioned as being beneficial to give the child some tea to drink after taking the seeds, but this is probably serviceable only in hastening its effects. An over-dose will produce violent hiccoughs (*hipo* of the Spaniards,) and sometimes, but rarely, terminates fatally. Cold water is the antidote generally administered. Don — Caldez, a very intelligent Spanish gentleman resident at Manilla, informed me, that they had several other vermifuge medicines, but none that equalled in efficacy these seeds; he judged from the beneficial effects resulting from cases occurring in his own family: his statement was also corroborated by both Spaniards and natives, who highly extolled their medicinal properties. These seeds are sold abundantly in the bazaars at Manilla and Cavité, at a very cheap rate. Considering that if these seeds were found on a farther trial possessed of the medicinal properties attributed to them, they would be valuable in this country, I brought to England several packets, which have fortunately arrived in good order, and my endeavours will be now directed to the raising of the shrub in this country, both to ascertain the probable genus to which it belongs, as also to have a better idea of its vermifuge powers from recent, rather than from seeds which must, from time, in some degree have lost their power. I have presented seeds, therefore, for this purpose to Kew Gardens, the Botanical Garden of the Apothecaries' Company at Chelsea, Messrs. Loddiges at Hackney, &c.; and at the meeting of the Medico-Botanical Society of London,

on the 14th of June last, I had the honour of presenting a packet of the seeds, with some brief observations. The establishment of this society, if its extensive and valuable objects are well supported, will materially increase our knowledge of medicinal plants, and render their properties better known; and we may hope that the time will arrive when a botanical garden will be added to it for the cultivation solely of medicinal plants, though this desideratum is now in some measure supplied by the laudable exertions of the Company of Apothecaries.

London, August 10th, 1881.

MEDICAL JURISPRUDENCE.

To the Editor of the London Medical Gazette.

SIR,

HAVING perused your number of August 13th, I perceived a statement made by Dr. Venables, of Chelmsford (in his case of poisoning with corrosive sublimate) that there is no known medicine which, by its internal administration, can produce the miscarriage of a pregnant woman.

I should not readily doubt what such a clever man as Dr. V. would assert, and should be very glad if his assertion was true. I hope to see the mistake (if any) rectified in a future number, but (if true) the fact confirmed.

Query. What were the circumstances which led to the late discovery of a valuable obstetric medicine in America?

I am, sir, yours, &c.

T. H. H.

CAJEPUT OIL IN CHOLERA.

To the Editor of the London Medical Gazette.

46, Dover-Street, 23d August, 1881.

SIR,

ACCORDING to promise, I send you the case of cholera, referred to in your journal last week.

I have the honour to be, sir,

Your obedient servant,

M. J. TIERNEY.

A lady, æt. 28, felt indisposed at half-past nine, P. M. on Wednesday, the

10th instant: she had been in good health throughout the day, and dined, as usual, at eight o'clock. At a little before ten vomited the contents of the stomach, reported to be merely the food taken at dinner: the bowels were moved shortly after. At half-past ten the vomiting and purging again took place, and she felt "very uncomfortable." Continued occasionally purged and sick at the stomach till a little before one, when she fainted, and remained insensible for about ten minutes: on recovering, she was seized with violent spasms in the lower extremities, more particularly in the feet, the toes being remarkably affected. The nausea and vomiting again distressing.

On my visiting this lady (for the first time since the invasion of the symptoms,) at a quarter before two, A.M. on Thursday, the 11th, I found her in a profuse perspiration, with a death-like coldness of the extremities; the pulse at the wrist scarcely perceptible; insatiable thirst; countenance expressive of great anxiety, with a remarkable shrinking of the features; and extreme restlessness: the mind perfectly clear. She said, "I believe that I have got the cholera: I took twenty-five drops of the cajeput oil about half an hour ago, and, in a few minutes after, fifty drops more: it has done me good; pray let me have another dose." I assented, and, fearing that what she had already taken might not have been genuine, I sent for some which I had received from a friend lately arrived from India: in the meantime, she took three tea-spoonfuls of brandy, in a little water, which was repeated in five minutes. The body and limbs having been well rubbed with hot, dry flannels, were wrapped up in the same: this was attended with considerable difficulty, from the great restlessness and jactitation.

At two o'clock, A.M. I gave forty drops of the oil, in half a wine-glass of warm water: this at once quieted the stomach, and in half an hour the spasms were somewhat relieved: the pulse became more perceptible, and she said that she felt better; but the thirst continued unabated, and she called for iced water, of which she was permitted to take half a wine-glass repeatedly, with the addition of a small quantity of brandy, and a little sugar.

At half-past three the extremities became quite warm, indeed they were

rather above the natural temperature; but the restlessness was at this time excessive, and a stool was passed, consisting of about six ounces of fluid resembling thick rice-water. Plain water, soda-water, lemon-peel water, iced, with a little brandy, occasionally given. The feeling of weakness excessive: there was a disposition to sleep, but this was interrupted by extreme thirst: the stomach and bowels now quiet. At five o'clock she anxiously requested a saline effervescent draught, which was given, but immediately rejected by the stomach: the pulse became more languid; another dejection, similar to the last; hiccup; the spasms increased in violence, and she complained of excruciating pain across the loins. Took ten drops of laudanum, with ten grains of Epsom salts, in a little peppermint water, but this was soon rejected, and not followed by any alleviation of the symptoms.

At six o'clock, A.M. I had the pleasure of having Dr. Holland associated with me. A blister was directed to be applied to the epigastric region; a draught ordered, containing a small quantity of Epsom salts, in a little peppermint water, which was immediately rejected by the stomach; the small quantity of brandy in iced water, soda water, &c. directed to be given occasionally.

The thirst continuing unabated, the patient was permitted to have small bits of ice in her mouth, which gave great comfort. During all this time *no urine was passed*; throughout there was no pain in the stomach or bowels.

The extremities becoming again cold, and the pulse giving way, it was agreed, at eight o'clock, to give forty drops of the cajeput oil. Great relief followed the exhibition of this dose; within an hour, however, the violent spasms in the muscles of the legs and feet returned, but they lasted only for a short time; she then became composed, and soon after had a short refreshing sleep.

At twelve o'clock great improvement; and at two, P.M. (the stomach and bowels having remained quiet) she took two grains of calomel, with three of the compound extract of colocynth. At three o'clock the patient took a small breakfast cup of mulagatawney soup; and had afterwards refreshing sleep for an hour and a half; at five took a wine-glass of sherry, and slept again for an hour; at seven took another cup of the

soup, and afterwards slept till half-past eight, when a dark, scanty stool passed; and for the first time since the attack, some urine; at half-past nine another scanty motion, and soon after a greater quantity of urine, of a pale colour; at ten o'clock, P.M. she took four grains of the extract of colocynth, and she was removed to a sofa while her bed was being made; at half-past ten, after taking a little more soup, she fell asleep.

Friday 12th, nine, A.M.—I found the patient asleep; her maid reported that she had passed a good night, and slept comfortably; urine passed freely; at noon met Dr. Holland; we found our patient free from complaint, having taken some of the soup for her breakfast. It is to be noted, that throughout this attack the tongue was clean and moist, although the thirst at times was intolerable. In the course of this day she was moved from her bed to a sofa; at nine in the evening, the bowels not having been moved, eight grains of the extract of colocynth were taken.

Saturday, 13th, morning.—Found that the patient had been disturbed by the pills during the night, and had had loose bilious motions.

Sent for at five, P.M. in consequence of her suffering occasional pain in the stomach and bowels, with vomiting. A draught, consisting of camphor, julep, and opiate confection, was ordered, but this was immediately rejected by the stomach. The pain and sickness continuing, thirty drops of the cajuput oil were administered, and soon after the pain and sickness subsided. The cajuput oil was always very grateful to the stomach. The lady has continued well. No other case of cholera has occurred in the family.

induced us to direct more particular attention than we had previously done to his work on *Organic Diseases*, published a few months ago. In bringing it under the notice of our readers, we shall first present them with a faithful analysis, (which, if somewhat extended, is not more so than the importance of the subject requires,) and then offer a few remarks upon the questions discussed.

The author begins by informing us, that it is not his intention to present to the reader a regular treatise on the diseases he is about to consider, but to state the result of his own experience, and apply the investigations which have long occupied a considerable portion of his time, to improve our knowledge of their nature and treatment.

"I believe," he observes, "a physician who has been long engaged in practice cannot better promote the objects of his profession than by simply relating with accuracy the facts he has himself observed, and the reflections they have suggested."

The work is divided into two parts: in the first, the nature and symptoms of the states which precede the establishment of organic disease, is considered; in the second, the means of preventing these states, and counteracting their effects.

With the exception of simple fever, and a state of inanition and plethora, he considers all diseases as depending on local affections. For the phenomena and treatment of the various species of fever, he refers to his treatise on febrile diseases.

The state of inanition he considers as always temporary, except it be supported by some local disease. It is only where due nourishment has been withheld, or the patient has suffered from previous disease, that we find the quantity of circulating fluids deficient, independently of a failure of function in some of the organs of digestion and assimilation; and in these cases, provided no such failure supervenes, their due proportion is soon restored. Plethora the author regards as a state of much greater importance, and as laying the foundation of many diseases. He treats of the manner in which it disposes to and modifies the symptoms of inflammation; but he regards congestion, that is, morbid distention of the larger vessels of particular parts, as the class of diseases most intimately connected with,

ANALYSES & NOTICES OF BOOKS.

"L'Auteur se tue à allonger ce que le lecteur se tue à abréger."—D'ALEMBERT.

A Treatise on the Means of Preserving Health, and particularly the Prevention of Organic Diseases. By A. P. W. PHILIP, M.D. F.R.S. L. and E. &c.

THE learned and elaborate paper of Dr. W. Philip, in our last number, has

not only the powers of circulation suffer directly from the injury done to the nervous system, thus producing a combination of diseased states of both systems, but the debility of the heart and blood-vessels has a secondary effect on the nervous system itself. The action of the brain and spinal marrow fail from defective circulation, and a state of these organs analogous to that which takes place in fainting, is superadded to that produced by the cause of the disease. Hence the immediate danger in this form of apoplexy.

From the whole that has been said of the more acute diseases of the brain, we may clearly perceive the general laws which regulate them; and although those with slower progress appear with less marked symptoms, we may still observe the same tendencies in them. They are still such as lead to derangement of its mechanism, or morbid distention of its vessels."

The author considers the affection of the brain, and its tendency to organic disease, from severe and long-continued stomach complaints and other causes of nervous irritation, as of a nature similar to other symptomatic diseases — such as dyspeptic phthisis, which arises from a long continuance of what are called bilious complaints; but the difficulty of the diagnosis with respect to the brain is greater, because the affection of this organ produces general, not local, symptoms, as happens in the affections of all other organs.

The brain is not only the organ of perception, but the source of nervous power. While it conspires with the spinal marrow in maintaining the secreting and assimilating processes, and occasionally influencing the powers of circulation, it is at once the seat of the sensorial functions and the source of the powers on which they depend. It is not necessary, therefore, that headache, giddiness, or other local symptom, should attend, in order to indicate an affection of the brain. This may be indicated by no other symptom than disorder and failure in the general functions of the system, all of which depend on the state of this organ. Thus it is that the more serious affections of the brain, in their early stages, often assuming a form little different from that of common nervous complaints, the difficulty of distinguishing the serious from the trivial disease is often very great, at the only

period at which there is a possibility of affording relief. This diagnosis is the subject of the fourth chapter.

The author conceives that we can only distinguish the more serious tendency of the nervous symptoms by an attention to the whole of the circumstances of the case, which he arranges under the following heads. The habit of the patient; the nature both of the predisposing and exciting causes; the general course of the symptoms; the changes produced by the continuance of the disease, particularly the patient's complexion and general appearance, and even the expression of his countenance.

Our space does not allow us to follow the author in his observations on each of these heads, but the general conclusions arrived at are, that the less irritable and variable the nature of the patient's habit, the more is to be feared from the continuance of the nervous symptoms; that more is to be apprehended from the permanence of the nature of the predisposing and exciting causes, than from the degree of their immediate effects; and more from the degree in which the symptoms are uniform and obstinate, than from the severity of the symptoms themselves; — and we are to judge of the danger rather by the effect produced, on the whole, on the patient's appearance and habits, than from the occasional consequences of the more severe attacks. Any thing like a permanent feverish tendency, is particular, is unfavourable; and the same may be said of permanent debility and a tendency to chilliness; and any degree of that expression of countenance which experience teaches the physician to associate with organic disease, is particularly unfavourable.

"From all that has been said," the author observes, "of the circumstances which indicate a disposition to organic disease of the brain in what is called nervous complaints, we infer that this termination is most to be feared in scrofulous and debilitated habits, when there is not such derangement in the digestive or any other set of organs as accounts for the severity of the nervous symptoms, and the patient is not of a variable and hysterical disposition; when the occasional games have been of a serious and permanent nature, and the nervous symptoms have not abated themselves for some time after their application; when the symptoms both

of mind and body are less variable than usual in nervous complaints, and the latter, particularly, apt to affect the same parts of the body; when there is constantly a more or less general tendency to derangement in the secreting system; when the heart is more irritable and the lungs less free, the nervous symptoms do not yield so readily as usual; the sensations less various, and the depression of spirits more uniform; the light pulse and tendency to increased heat, or, on the other hand, the sense of chilliness and debility more constant; when the constitution seems more affected than usual by the continuance of the disease, the strength and flesh on the whole wasting, and, particularly, where the countenance assumes a sallow colour and an habitually irritable and anxious expression;—when these or several of these circumstances are well marked in what are called nervous complaints, I have been assured, by repeated observation, that they are not to be safely disregarded."

The author observes, he has dealt the longer on this diagnosis, because all long continued, and particularly all organic disease of vital parts, as appears from all he has had occasion to say relating to the part of the subject before us, and from all the evidence afforded by dissection, tends to produce the chronic disease of the brain, the diagnosis of which is here pointed out, and their phenomena cannot be understood without keeping this tendency in view.

The affection of the brain we are here considering, if it cannot be arrested, terminates fatally, by gradually exhausting the strength; or organic disease being established in the brain, produces a similar affection elsewhere, and the patient sinks under more than one disease. The lungs are the most frequent seat of this secondary disease. After being reduced to a state of great debility, the patient begins to cough, to which he had no previous disposition, and the worst symptoms of pulmonary consumption rapidly shew themselves. The author repeatedly calls the reader's attention to the tendency of disease of the brain to produce corresponding disease in other parts of the body, which he regards as more than any other circumstance influencing the course of protracted diseases; nor need this surprise us, when we see organic disease of the lungs established in a few hours when

they are deprived of the influence of this organ. In cases of long-continued nervous irritation, terminating in fatal organic disease of the brain, the author has seen on dissection almost every organ of the body more or less organically diseased.

Affections of the spinal marrow, which have a similar, though less powerful influence than the brain, on every part of the system, the author considers as rather belonging to the province of the surgeon than physician.

In the fifth chapter he treats of the appearances on dissection, in organic diseases of the brain, and points out the causes of their affording less assistance to the physician than those of other organs. This difference he ascribes to the great variety of its functions; the delicacy of its organization, which may be sufficiently deranged to produce the most serious symptoms, without leaving traces to be discovered by dissection; and the particular circumstances in which this organ is placed.

The chapter closes with the following observation:—"Nothing more strikingly shews the difficulty of associating the morbid appearances of the brain with the symptoms, than the fact, that it is only necessary that the same cause of injury, even acting on the same part of the brain, should make its impression more or less suddenly, in order that it shall in one case excite to morbid activity the whole circulating system, or so reduce its powers that it is hardly capable of its function."

The morbid affections of the heart, as the organ next in importance to the brain, are next considered. These organs, the author observes, are strikingly contrasted, both in their structure and their functions. Of all the vital organs, the one is the most complicated, the other the most simple. So numerous are the functions of the former, that it is difficult to assign their limits; the heart has but one function, that of propelling the blood—a function, however, on which every other depends.

The diseases of the heart, like its structure, are simple. The author divides them into two classes; those which impair the power with which it propels the blood, and those which impede the passage of the blood through it. The former the diseases of the heart itself; the latter of its valves.

As the chief object of the treatise is

to lay down rules for preventing disease of function changing into disease of structure, and the simple organic diseases of the heart seldom shew themselves till they have arrived at such a stage as defies our art, there would have been little advantage in dwelling on them in such a treatise; but the heart, like other organs, is liable to other diseases, which may terminate in disease of structure. These are the proper subjects of such a treatise. It is liable to inflammation and irregular action from other causes; and here, as in other cases, the continuance of deranged function often terminates in derangement of structure.

The author enters fully into the means of distinguishing inflammation of this organ from that of the lungs, in which there is often great difficulty. The seat of the pain and other uneasiness, and the difficulty of breathing, for reasons pointed out by the author, but which we have not room to enter on, afford no certain diagnosis. From the state of the circulation we should, *a priori*, expect to find such a diagnosis of carditis; and in this disease the pulse is apt to be irregular and fluttering, and a tendency to, or actual syncope, to take place. But the last is not a frequent symptom, nor is the irregular and fluttering pulse a constant one; and in inflammation of the lungs alone, the pulse in different cases is variously affected. When, however, the latter symptoms are more strongly marked than usual, we have reason to believe that the heart is inflamed; of which there can be no doubt if the attack in the chest has been preceded by rheumatic pains of the limbs. The author observes, that when these pains precede inflammatory affections of the heart, he has found that the patient had laboured under hepatic affection.

There are few phenomena of disease more curious, and at first view more unaccountable, than the well-known fact, that inflammation of the heart is apt to supervene on rheumatic pains of the limbs. The author thinks that this only happens where the pains are connected with an obstructed state of the digestive organs, of which they are sympathetic. When in such cases the causes of pulmonary inflammation are applied, the great sympathy which exists between the stomach and heart often determines the effect of these causes to the latter

organ; and, as constantly happens in sympathetic affections, the new affection relieves the former one; and thus, on the supervention of the cough and difficulty of breathing, the rheumatic pains disappear.

Irregular action of the heart may proceed from sympathy with other organs, or increased irritability of the heart itself; and as it is one of the most frequent symptoms of organic disease of this organ, it is of great consequence to determine from what cause it arises. The author enters fully into this part of the subject, in which our limits prevent our following him. He considers a uniform inability of bearing strong exercise, or any other cause quickening the motion of the blood, as the most unequivocal symptom of organic disease of the heart; although even this he has known the effect of sympathy with the state of the digestive organs; but, combined with the sallowness and anxiety of countenance which indicates organic disease, it may generally be regarded as decisive, when accompanied with other symptoms of disordered action of the heart. The author has seen many cases of irregular action of the heart, which had for years been treated as organic disease of that organ, prove to be only sympathetic, and wholly disappear on the removal of the original disease.

The state of the pulse but little assists the diagnosis, being often as much affected in functional as structural disease of the heart. We cannot afford room to follow the author in his rationale of *origina pectoris* and sudden death, in structural disease of the heart, for which we must refer to his treatise. The chapter concludes with the following observations:—"It appears from all that has been said, that the only states with which we are acquainted which dispose to organic disease of the heart, if we except a state of habitual plethora, which tends to derange all the vital organs, are inflammation and too irritable a state of its fibres, arising either from a fault in the heart itself, or a cause of irritation in some other organ affecting it through the medium of its nerves.

We have seen, in the experiments above referred to, that, independent of the brain as the power of the heart is, it is wholly subjected to its influence; and that although for a certain time it is capable of its perfect function, after

the brain has ceased to exist, yet while the brain and its nerves are entire, it is placed so completely under the influence of the nervous system, that through it, its power may even be instantly destroyed. This arises from the direct operation of the brain on the muscular fibre; but the heart, it farther appears from those experiments, is also, in common with all other parts, subjected to the power of the brain through the assimilating processes, on which the healthy structure every where depends. We have seen that when the influence of the brain was withdrawn from the lungs, the most formidable organic disease was established in the space of a few hours.

Thus it is that long-continued nervous irritation—that is, deranged or defective nervous power—is so frequent a cause of disordered structure; and it seems to be chiefly in this way that our frame at length decays. The due mechanism of every part depending on the healthy action of the nervous system, decays in proportion as its vigour is impaired. This observation applies to no organs more remarkably than to the heart and large vessels. As old age advances, an evident change takes place in them, even where nothing occurs that deserves the name of disease; they acquire too great a degree of firmness, and often in some parts a bony hardness. When the change is slow, the other vital organs at the same time, and for the same reason, gradually losing their power, little inconvenience is experienced, except that of increasing weakness."

The seventh chapter treats of the morbid affections which precede change of structure in the lungs. The author considers the lungs of all the vital organs the most liable to change of structure, which, together with the nature of their function and extensive sympathies, render them peculiarly liable to disease. But our limits prevent our entering at any length into this chapter, to which we refer the reader for the manner in which the sympathies which have so great a share in determining the course of disease influence this organ, whose strongest sympathy is with the liver, as that of the heart is with the stomach. We particularly refer to this chapter for a sympathetic affection of the lungs which frequently shews itself about middle life, and gradually, though

often very slowly, undermines the constitution, and affords a striking instance of the manner in which disease at first so trivial as hardly to command the attention, gradually becomes complicated, and at length, involving many of the vital organs, incurable. In speaking of this case the author particularly calls the attention of the reader to the nature of those cases in which, by the sympathy of parts, more than one organ partakes of the disease. "That the reader," he observes, "may understand the nature of this disease, it will be necessary to direct his attention to the following circumstances. I have already had occasion to observe, that it is allied to dyspeptic phthisis—that species of consumption in which the disorder spreads from the liver to the lungs. It is in those who have been subject to indigestion that the disease we are considering is apt to shew itself, and here, as in dyspeptic phthisis, it is chiefly in proportion as the indigestion affects the function of the liver that the lungs are affected by it.

"Some degree of morbid acidity and flatulence of stomach, and some occasional derangement in the biliary secretion, are so common, that by many they are hardly regarded as deserving the name of disease; yet even these slight affections, if long continued, often produce a corresponding affection of the lungs, which like themselves is seldom considered of sufficient importance to attract much attention: but, however mild the symptoms may be, the state of the patient, when more than one vital organ is affected, is essentially different from that in which the disease is confined to one.

"However slight, it is a case of complicated disease; and, from the sympathy established between all parts of the body through the nervous system, the affection of each part tends to increase both the symptoms and obstinacy of the other; and it adds not a little to the evil that, from the nature of such cases, the organs affected must necessarily be such as greatly sympathize with each other. The effect of every cold, cause of fatigue, &c. falls chiefly on the debilitated parts, and thus also the evil accumulates." The two great sources of organic disease the author considers disordered circulation and disordered nervous power. He here points out the effect of each of

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into the system. It is that long-continued nervous irritation—that is, deranged or excessive nervous power—is so frequent a cause of disordered structure; and it is to be chiefly in this way that our system decays at length. The due mechanism of every part depending on the healthy action of the nervous system decays in proportion as its vigour is impaired. This observation applies to organs more remarkably than to the heart and large vessels. As old age advances, an evident change takes place in them, even where nothing occurs that deserves the name of disease; they acquire too great a degree of firmness, often in some parts a bony hardness. When the change is slow, the other vital organs at the same time, and for the same reason, gradually losing their power, little inconvenience is experienced, except that of increasing weakness."

The seventh chapter treats of the morbid affections which precede change of structure in the lungs. The author considers the lungs of all the vital organs the most liable to change of structure, which, together with the nature of their function and extensive sympathies, render them peculiarly liable to disease. But our limits prevent our entering at any length into this chapter, to which we refer the reader for the manner in which the sympathies which have so great a share in determining the course of disease influence this organ, whose strongest sympathy is with the liver, as that of the heart is with the stomach. We particularly refer to this chapter for a sympathetic affection of the lungs which frequently shews itself about middle life, and gradually, though

often very slowly, undermines the constitution, and affords a striking instance of the manner in which disease at first so trivial as hardly to command the attention, gradually becomes complicated, and at length, involving many of the vital organs, incurable. In speaking of this case the author particularly calls the attention of the reader to the nature of those cases in which, by the sympathy of parts, more than one organ partakes of the disease. "That the reader," he observes, "may understand the nature of this disease, it will be necessary to direct his attention to the following circumstances. I have already had occasion to observe, that it is allied to dyspeptic phthisis—that species of consumption in which the disorder spreads from the liver to the lungs. It is in those who have been subject to indigestion that the disease we are considering is apt to shew itself, and here, as in dyspeptic phthisis, it is chiefly in proportion as the indigestion affects the function of the liver that the lungs are affected by it.

"Some degree of morbid acidity and flatulence of stomach, and some occasional derangement in the biliary secretion, are so common, that by many they are hardly regarded as deserving the name of disease; yet even these slight affections, if long continued, often produce a corresponding affection of the lungs, which like themselves is seldom considered of sufficient importance to attract much attention: but, however mild the symptoms may be, the state of the patient, when more than one vital organ is affected, is essentially different from that in which the disease is confined to one.

"However slight, it is a case of complicated disease; and, from the sympathy established between all parts of the body through the nervous system, the affection of each part tends to increase both the symptoms and obstinacy of the other; and it adds not a little to the evil that, from the nature of such cases, the organs affected must necessarily be such as greatly sympathize with each other. The effect of every cold, cause of fatigue, &c. falls chiefly on the debilitated parts, and thus also the evil accumulates." The two great sources of organic disease the author considers disordered circulation and disordered nervous power. He here points out the effect of each of

these causes on the lungs. We shall have occasion to recur to this subject in giving an account of the second part of the work, in which the treatment of the diseases we have been considering is laid down. The author's account of the effects on the lungs of defective nervous power was first published in the *Philosophical Transactions* for 1817.

The eighth, ninth, and tenth chapters are devoted to the morbid affections which precede change of structure in the abdominal viscera, but our limits will not permit us even to enter on this part of the subject. The extensive sympathies of the liver, and particularly its sympathy with the brain, which with its liability to disorder causes it to partake of and modify so many diseases, the author enters into at considerable length; and he particularly dwells on the means of ascertaining the presence and degree of its first deviations from the healthy state, in which it is almost always in our power permanently to restore its healthy function, and thus often to prevent a long series of accumulating evils. We must here close our account of the first part of the *Treatise*. In our next number we shall review the second and last part, which treats of the means of correcting the states which precede organic disease, and counteracting their effects.

MEDICAL GAZETTE.

Saturday, August 27, 1831.

"Licet omnibus, licet etiam mihi, dignitatem *Archæ Medice* tuæ, potestatem modo venendi in publicum atq. disendi periculum non recteo."—*Cicero*.

LONDON UNIVERSITY.

A MEETING of the proprietors was held last Saturday, on which occasion an unsuccessful attempt was made by the friends of Mr. Pattison to procure a reconsideration of his case: the proposal, however, was negatived by thirty-seven to twenty-five. We presume, therefore, that so far as his professorship goes, we may look upon the matter as definitively settled. Having fully expressed our

opinion last week, it is not our intention to enter upon the question again unless some fresh circumstances should occur to warrant us in doing so. There is one point, however, to which we would briefly advert. It seems to us, from the manner in which Mr. Pattison expresses himself in his "Statement," that he intended to convey the idea that Professor Thomson was to a certain extent implicated in the proceedings of Dr. Alexander Thomson. Now this is uncandid, and ought to have been avoided, because the public, knowing the parties only as father and son, might very naturally be misled. It is quite notorious to those acquainted with the facts, that Dr. Alexander Thomson, unfortunately for himself, was not in any degree under the controul of his father, nor as all likely to receive any influence from him. It might appear indelicate on our part to allude to such matters, but the step taken by Professor Thomson relieves us from this charge; and a desire to be strictly impartial, leads us to censure this as the least commendable part of Mr. Pattison's "Statement."

Professor Thomson, if the words he made use of at the meeting on Saturday be correctly reported, charged his late colleague with "ignorance, and unfitness for the situation which he held." This to be sure appears rather extraordinary after Dr. Thomson's testimony in his favour at no distant period; but, nevertheless, it has something tangible about it. Let Mr. Pattison be *proved* to be deficient in knowledge of his profession, and then indeed there will be some shew of justice in his dismissal, though his judges, with unrivalled obliquity of intellect, followed up the severest sentence which they had it in their power to pass upon him by a declaration of his unimpeachableness, and of his having passed through all his trials without any stain on his private or professional character. We suspect from

all this that Mr. Pattison has not the art of making himself popular—that he was placed in a situation which rendered it the interest of some to expose and magnify his imperfections—that at first his colleagues were anxious to support him for the general benefit of the school—but that afterwards, fancying they found him deficient in those attractive manners which secure the good opinion of an audience, or those commanding talents which crush all opposition, but that the tide still ran against him, they at length made up their minds to throw him overboard, with a view to their common safety. Our belief is, that the other Professors in the London University were not men of such transcendent talents as to make Mr. Pattison shew, amid their brilliancy, like a spot on the sun's disk, unless very considerable exertions had been made to blacken him. At all events, it has been a most unfortunate connexion for the Ex-professor as well as for the Institution, which has been most seriously injured by these discussions.

CHOLERA.

SOME "Papers relative to the disease called Cholera Spasmodica, &c." have just been published by the Board of Health. They contain a clear and succinct account of the disease, taken from various sources, but without any attempt to direct the opinions of medical men in this country. "So much knowledge and intelligence (observes the writer) are diffused among them, that until more uniformly successful modes of practice are devised, the Board wishes to leave their minds unbiassed." To the above are appended extracts from the Reports of Dr. Keir, from Moscow; and of Drs. Russel and Barry, from St. Petersburg. The latter, together with the "Preliminary Steps," we subjoin, as most calculated to interest our readers:—

Extract from the joint Report of Drs. Russel and Barry.

St. Petersburg, 11 July, 1831.

SIR,

ALTHOUGH there can be no doubt that the disease now prevailing here is strictly identical, in all essential points, with the epidemic cholera of India; and although there are many descriptions extant of that maledy, much more ably and accurately drawn up than any which we can pretend to give, yet we are induced to believe that a short account of the symptoms which we ourselves have actually witnessed and noticed at the bedside in some hundreds of cases, since our arrival here, may be useful,—first, because we are not aware that any description by an eye-witness of European cholera has yet been addressed to the British Government; secondly, because the disease, as it has shewn itself in this capital, when closely compared with the Indian cholera, appears to have undergone some modifications; thirdly, because, having now studied the disease in all its stages, our description, however imperfect, will at least assist towards establishing a standard of comparison with other local epidemics of cholera in Europe, and may, perhaps, enable those who have not seen this disease to recognize it with more certainty than they would otherwise be able to do.

The cholera morbus of the north of Europe, to which the Russian peasants have given the name of "chomna kolera," or black illness, like most other diseases, is accompanied by a set of symptoms which may be termed preliminary; by another set which strongly mark the disease in its first, cold, or collapse stage; and by a third set, which characterise the second stage, that of reaction, heat, and fever.

Preliminary Symptoms.—We have but few opportunities of witnessing the presence of all these symptoms, some of which precede the complete seizure by so short an interval, that the utmost diligence is scarcely sufficient to bring the patient and the physician together, after their occurrence, before the disease is fully formed. Diarrhoea, at first feculent, with slight cramps in the legs, nausea, pain, or heat about the pit of the stomach, malaise, give the longest warning. Indeed, purging, or ordinary diarrhoea, has been frequently known to continue for one, two, or more days, unaccompanied by any other remarkable symptom, until the patient is suddenly struck blue, and nearly lifeless. Often the symptoms just mentioned are arrested by timely judicious treatment, and the disease completely averted. When violent vertigo, sick stomach, nervous agitation, intermittent, slow, or small pulse, cramps, beginning at the tips of the fingers and toes, and rapidly approaching the trunk, give the first warning; then there is scarcely an interval. Vomiting or purging, or

both these evacuations, of a liquid like rice-water or whey, or barley-water, come on; the features become sharp and contracted, the eye sinks, the look is expressive of terror, wildness, and, as it were, a consciousness on the part of the sufferer that the hand of death is upon him. The lips, the face, the neck, the hands, the feet, and soon the thighs, arms, and whole surface, assume a leaden, blue, purple, black, or deep brown tint, according to the complexion of the individual, varying in shade with the intensity of the attack. The fingers and toes are reduced at least a third in thickness; the skin and soft parts covering them are wrinkled, shrivelled, and folded; the nails put on a blueish pearl-white; the larger superficial veins are marked by fine lines of a deeper black; the pulse is either small as a thread, and scarcely vibrating, or else totally extinct. The skin is dead, gold, and often damp; the tongue shows moist, often white and loaded, but fleshy and probably, like a bit of dead flesh. The voice is nearly gone; the respiration quickly irregular, and imperfectly performed. Inspiration appears to be effected by an intense effort at the chest, whilst the air rasil (in the most hopeless cases, and towards their close), instead of expanding, collapses, and stops the ingress of the air. Expiration is quick and convulsive. The patient asks only for water, speaks in a plaintive whisper (the "vox cholericæ"), and only by a word at a time, from not being able to retain air enough in his lungs for a sentence. He tosses incessantly from side to side, and complains of intolerable weight and anguish around his heart. He struggles for breath, and often lays his hand on his stomach and chest, to point out the seat of his agony. The integuments of the belly are sometimes raised into high irregular folds, whilst the belly itself is violently drawn in, the diaphragm upwards and inwards towards the chest; sometimes there are tetanic spasms of the legs, thighs, and loins; but we have not seen general tetanus, nor even trismus. There is occasionally a low, suffering whine. The secretion of urine is always totally suspended, nor have we observed tears shed under these circumstances; vomiting and purging, which are far from being the most important or dangerous symptoms, and which, in a very great number of cases of the present epidemic, have not been profuse, generally cease, or are arrested by medicine early in the attack. Frictions remove the blue colour for a time from the part rubbed; but in other parts, particularly the face, the line becomes every moment more intense and more general. The lips and cheeks sometimes puff out and flap, in expiration, with a white froth between them, as in apoplexy. If blood be obtained in this state, if it be black, spewy by drops, is thick, and feels to the finger colder than natural. Towards the close of this

scene, the respiration becomes very slow; there is a quivering among the tendons of the wrist, the mind remains entire. The patient is first unable to swallow, then becomes insensible; there never is, however, any rattle in the throat, and he dies quietly after a long, convulsive sob or two.

The above is a faint description of the very worst kind of case, dying, in the cold stage, in from six to twenty-four hours after the setting in of the bad symptoms. We have seen many such cases just carried to the hospital from their homes or their barracks. In by far the greater number vomiting had ceased; in some, however, it was still going on, and invariably of the true serous kind. Many confessed that they had concealed a diarrhoea for a day or two; others had been suddenly seized, generally very early in the morning.

From the aggravated state which we have just described, but very few indeed recover, particularly if that state has been present *even for four hours* before treatment has commenced. A thread of pulse, however small, is almost always felt at the wrist, where recovery from the blue or cold stage is to be expected. Singular enough to say, hiccough coming on in the intermediate moments, between the threatening of death and the beginning of reaction, is a favourable sign, and generally announces the return of circulation.

In less severe cases, the pulse is not wholly extinguished, though much reduced in volume; the respiration is less embarrassed; the oppression and anguish at the chest are not so overwhelming, although vomiting and purging and the cramps may have been more intense. The coldness and change of colour of the surface, the peculiar alteration of the voice, a greater or less degree of coldness of the tongue, the character of the liquids evacuated, have been invariably well marked in all the degrees of violence of attack which we have hitherto witnessed in this epidemic. In no case or stage of this disease have we observed shivering; nor have we heard, after inquiry, of more than one case, in which this febrile symptom took place.

Fewer or Hot Stage.—After the blue cold period has lasted from twelve to twenty-four, seldom to forty-eight hours or upwards, the pulse and external heat begin gradually to return, hiccoughs are complained of, with noise in the ears, the tongue becomes more loaded, redder at the tip and edges, and also drier. High-coloured urine is passed with pain, and in small quantities; the pupil is often dilated; soreness is felt on pressure over the liver, stomach, and belly; bleeding by the dentition or leeches is required; ice to the head gives great relief. In short, the patient is now labouring under a continued fever; not to be distinguished from ordinary fever. A profuse critical perspiration may

comes on, from the second or third day, and leave the sufferer convalescent; but, much more frequently, the quickness of pulse and heat of skin continue; the tongue becomes brown and parched; the eyes are suffused and drowsy; there is a dull flush, with stupor and heaviness, about the countenance, much resembling typhus; dark sordes collect about the lips and teeth; sometimes the patient is pale, squalid, and low, with the pulse and heat below natural, but with the typhous stupor; delirium supervenes, and death takes place from the fourth to the eighth day, or even later, in the very individual, too, whom the most assiduous attention had barely saved in the first or cold stage. To give a notion of the importance and danger of cholera fever, a most intelligent physician, Dr. Reimer, of the merchant hospital, informs us, that of twenty cases treated under his own eye, who fell victims to the disease, seven died in the cold stage, and thirteen in the consecutive fever.

The singular malady is only cognizable with certainty during its blue or cold period. After reaction has been established, it cannot be distinguished from an ordinary continued fever, except by the shortness and fatality of its course. The greenish or dark, and highly-bilious discharges produced in the hot stage, by calomel, are not sufficiently diagnostic; and it is curious that the persons employed about these typhoid cases, when they are attacked, are never seized with ordinary fever, but with a genuine cold, blue cholera: nothing, therefore, is more certain, than that persons may come to the coast of England, apparently labouring under common feverish indisposition, who really and truly are suffering under cholera in the second stage.

The points of difference between the present epidemic and the cholera of India, when the two diseases are closely compared, appear to us to be the following:—

First. The evacuations, both upwards and downwards, seem to have been much more profuse and ungovernable in the Indian than in the present cholera, though the characters of the evacuations are precisely the same.

Secondly. Restoration to health from the cold stage, without passing through consecutive fever of any kind, was by far more frequent in India than here, nor did the consecutive fever there assume a typhoid type.

Thirdly. The proportion of deaths in the cold stage, compared with those in the hot, was far greater in India, according to Dr. Russel's experience, than here.

Fourthly. The number of medical men and hospital attendants attacked with cholera during the present epidemic, in proportion to the whole employed and to the other classes of society, has been beyond all comparison greater here than in India under similar circumstances; twenty-five medical men have been already seized, and nine have died out

of two hundred and sixty-four. Four others have died at Cronstadt, out of a very small number residing in that fortress at the time the disease broke out there. Six attendants have been taken ill, at a small temporary hospital behind the Aboucoff, since we wrote last. It is certain, however, that in some cholera hospitals, favourably circumstanced as to size, ventilation, and space, very few of the attendants have suffered.

Of these facts we are likely to receive accurate statements in answer to the written questions which we have submitted to the medical authorities through the Government here.

Convalescence from cholera has been rapid and perfect here, as is proved by the following facts.—The Minister of the Interior had given orders that all convalescents, civil as well as military, at the General Hospital, should be discharged fourteen days. We inspected about two hundred of these *détenués* some days back, with Sir James Wylie, and found them in excellent health; without a single morbid sequel amongst them.

Not a few were in this epidemic, nor have they been often attended with fatal results: hospital sermons seem to have been most liable to them. One physician had three attacks, the second severe; in which he states that he derived great benefit from the Magisterium bismuthi.

In our next we shall resume the medical history of the disease, and

Have, &c.

(Signed) WILLIAM RUSSEL, M.D.
D. BARRY, M.D.

Preliminary Steps advised to be taken on the first appearance of Cholera.—It is of great importance that each town or village, particularly those on the coast, should be prepared with the best-arranged means to meet such a calamity as the breaking out of the disease now raging in the North of Europe, so as to prevent confusion upon the emergency of the moment, and be ready to act upon a well-considered system for preventing the spreading of infection.

With this view, the Board recommends the formation of a local Board of Health at each place, to consist of the chief magistrate, the clergyman, one or more medical gentlemen, and two or three of the principal inhabitants, who may immediately, and as occasion requires, correspond with the Board of Health in London, the medical members of the local Boards being deputed to write upon all subjects relating to any symptoms of the disease.

The best means of preventing the spreading of infection are, the immediate separation of the uninfected from the sick, by their prompt removal from the house of any infected person; or by the removal of any in-

dividual affected with cholera, it is possible, to some extent, in an emergency situation, appropriated to the purpose; but in the event of such removal not being practicable, on account of extreme illness or otherwise, the prevention of all intercourse with the sick, even of the family of the person attacked, must be rigidly observed, unless the individuals who desire to stay shall submit to such strict rules of quarantine as the public safety may demand, and the local Board of Health, advising with the Board of Health in London, may consider expedient.

As success in the treatment of this disease, and preventing its spreading, has been found greatly to depend upon early medical assistance, it is of great importance that the heads of families and others should be vigilant in guarding against concealment or delay in making known every case which may occur.

On the removal of cases in persons, the rooms they may have inhabited, and the house generally, should be thoroughly exposed to a continuous current of air, and courses laid to all the well-known means of purifying houses, particularly the use of chloride of lime, and the addition and turning of the sick person, after removal, should be soaked in a tight wooden tub or tub in water, and well washed. It is possible that ventilation and cleanliness can be carried too far in the houses of the sick after removal; whitewashing, and a variety of means of effecting so important an object, will no doubt occur to the local Boards of Health; and, in consequence, of ventilation for some days as the best means of preventing contagion.

In large towns the local Board of Health should be composed of sufficient members to admit of one division into districts, committees, always attaching to each committee at least one medical gentleman.

For the information of the public, and to secure a ready and instant reference to authorized persons, the names and residence of the persons composing the local Boards of Health should be placed on the Church door.

In the event of an epidemic calamity falling upon this country, as the introduction of this disease, rules and regulations upon an extensive scale, suited to the rigid system of quarantine which such an event would demand, will be immediately circulated by the Lords of his Majesty's Most Honourable Privy Council, who will, upon the earliest intimation of the existence of the disease, send down a medical practitioner, who has been acquainted with the disease as it occurred in India.

In the name of the Board, —

HENRY HAZLETON, President.

JOHN HAZLETON, Secretary.

JOHN HAZLETON, Treasurer.

JOHN HAZLETON, Clerk.

REPORTS OF CASES OCCURRING IN PUBLIC INSTITUTIONS.

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eggs, were administered four times daily; every third day a purgative was being used. The nutrient clysters were generally well retained; when they were not, the addition of a few drops of laudanum had the desired effect. The wound on the left side, as far as the centre of the thyroid cartilage, adhered by the first intention; but on the right side it was found necessary to put in fresh stitches twice after the first dressing; and at this part the saliva continued to escape for a long time, and the edges of the wound required to be frequently touched with the nitrate of silver. It was not fully closed till about the end of July, and then there remained an injury to the function of any part farther than the loss of sensation in the skin.

REMARKS.—At the first view of this case, little expectation of a favourable result, was entertained, so frightfully large did the gap appear; but contrary to expectation, the healing process went on remarkably well, and little disturbance of the system was induced. The incision extended very close indeed to the carotids on both sides, and even appeared to pass the course of the linguals; but it must have been some hat below these, because the division of one of the lingual arteries would in all probability have been followed by fatal hæmorrhage, unless surgical aid had been at hand. The hæmorrhage was very profuse; but it may be satisfactorily accounted for from the division of veins that were necessarily in the way, as well as branches from the lingual and superior thyroidal arteries. In wounds of the throat, more particularly when the pharynx is opened, no attempt should be made at swallowing for at least ten days or a fortnight; nor should a tube, for the same space of time, be introduced through either nostril, because, however adroitly done, it invariably excites a great deal of irritation and a desire to vomit. The reason for avoiding deglutition is obvious; when the wound is close to the os hyoides, and an attempt made to swallow, part of the liquid passes through the glottis, and excites frightful paroxysms of coughing, by which the wound is torn open, as well as the patient's life endangered from suffocation; and when lower down, although not attended with the same dangerous consequences, it is still most desirable to keep the parts in as quiet and undisturbed a state as possible, because this will facilitate the healing of the wound, and be the means of guarding against inflammation in the respiratory passages. I am not at present prepared to state facts to shew how long a patient may be supported by nutritive clysters, but at all events long enough to allow the healing process in wounds of the throat to be so far advanced as not to be afterwards materially disturbed by the act of deglutition.

MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY.

Case treated by Mr. Hamilton, under the superintendence of Dr. Stokes; with Mr. Hamilton's remarks.

Acute Rheumatism.

JULIA MARR, æt. 26, was admitted on the 14th of March, 1831. Complaints of severe pain of the right knee above the patella, on the inner side of the ankle of the same side, and on the outer and back part of the left knee. The first two places are slightly swollen, but not red; the last two both red and swollen. The pain in all is constant, aggravated by motion or pressure, and becomes particularly severe at night, depriving her of rest; it also shoots from the knees to the hips and ankles. Some suppuration takes place from the application of heat or sweating.

Her history is briefly as follows:—Three weeks since perceived her knees and ankle-joints to be slightly swollen and stiff; a week after she was seized with pain in the back and right side, without any other symptom. The joints of the lower extremities next became affected, the same being erratic.

Since their commencement up to the present time, she has had little sleep, and generally awakes at night. Has lost her appetite. Tongue clean, and regular, bowels free. Was ordered, leeches to the knee, followed by a poultice, and

Opium.

Rep. Pil. et applicatur Hir. xii, atrique

20th.—Head-ache gone, as also nearly the pains in the knees, numbness and stiffness being now more complained of than pain. No medicine.

21st.—Some little return of head-ache, and small lumps can be felt under the skin in the temple. No medicine.

22d.—Slight pains in knees complained of, attended with a good deal of stiffness;

Hir. xii. temporibus.

Hæmst. Rhei.

20th.—Head-ache gone, as also nearly the pains in the knees, numbness and stiffness being now more complained of than pain. No medicine.

21st.—Some little return of head-ache, and small lumps can be felt under the skin in the temple. No medicine.

22d.—Slight pains in knees complained of, attended with a good deal of stiffness;

sweats profusely in the night, so as to wet the sheets through and through.

R. Liniment. Camph. 3vj.

Tinct. Opii, ℥ss.

Perfricantur genua.

23d.—Very severe pain last night, extending from the right knee into the hip, attacking also the left shoulder and side of the chest, so as to impede respiration.

Rep. Lin. et Hab. Opii, gr. j. ter in die.

This relieved her; she was then put on the use of sulph. quinine gr. i. ter in die, and dismissed entirely free from pain on the 8th April, about three weeks after admission.

Periostitis, with Abscesses—Constitutional Transients.

William Derry, *et al.* 32, a labourer, admitted April 5th, 1851. Complainant of very severe pain in the right side of the head, extending down the side of the face and neck as far as two abscesses; one situated at the upper part of the sternum, not yet open, and of a dark red colour; the other at the internal third of the left clavicle, open, and in which a probe can be passed more than an inch and a half, discovering the bone to be carious. From the left side of this abscess a hard tender swelling extends for more than two inches along the clavicle, and a very short way up the neck.

All the right side of the head, face, and neck, is very tender, and in some places red and very slightly swollen, with a sensation of numbness. The pain in the head is constant, worse at night, and aggravated by cold or wet weather, or exposure to wind. He has no other pain. His history is as follows:—He had several attacks of the venereal disease, for which he was salivated two or three times. The last attack was six years ago. Since that time his health continued pretty good, without pain or eruption, till a year since, when he first experienced a severe pain about the middle of the sternum, with some degree of swelling, worse at night, and increased by pressure; and, a week or two after its first appearance, accompanied by a swelling every night in the throat and face, which went off in the morning. After several months he was relieved from this affection in this hospital.

At the time of the snow, about nine weeks ago, he caught cold, and pain was experienced at the left clavicle, and side of the neck; the pain leaving the left side, attacked the parts at present engaged with great severity; since which time he has been deprived of rest at night, and lost his strength and health. The abscess on the upper part of sternum appeared a fortnight since, preceded by pain in the spot. Appetite good; tongue loaded, red at tip; bowels confined; pulse slow.

His all capite post alioquin; et habet Decoct. Sarsap. ℥i. j. Acid. Nŕ. 3.

6th.—Little relief of the pain. Ten needles were inserted about an inch deep into the temporal muscle, with great mitigation of the pain, though not its entire removal.

Rep. Decoct.

7th.—He slept yesterday two hours after the insertion of the needles, and his headache for the rest of the day was not so severe; to-day, however, it is nearly as bad as ever. The abscess in the sternum was opened, and the opening in the one on the left clavicle enlarged.

Rep. Decoct. et applicetur Venicat. Capiti.

The leeches and blisters were repeated, with the daily use of the decoct. sarsap. and occasional purgatives. By these means the pains became gradually less, and at present he has no pain any where, but only some slight degree of swelling and a sensation of numbness in the right side of the face (April 23d). The abscesses, though not yet healed, are greatly improved in appearance, the crusts granulating, and the parts are less red and swollen, and no longer tender.

REMARKS.—The result of this case is very satisfactory, as, from the obstinacy and severity of the pain, little good was at first expected to be produced. At present the patient is at least in a state of comparative ease from a very distressing affection. Some of these cases of periostitis in bad constitutions, and where the system has been shattered by repeated courses of mercury, assume a very severe form; the periodonts are not only being painful and tender to the touch, but a semi-cartilaginous deposition taking place between the bone and periosteum, ending in suppuration and disease of the bone, as in this case. An abscess, however, frequently forms, without being preceded by the semi-cartilaginous deposition from inflammation of the periosteum; such was the case in Graydon, the man with jaundice, under Dr. Graves. The semi-cartilaginous deposition appears also, when occurring in good constitutions, to have a disposition not to run into suppuration, coming and going for a number of years with little change in size or situation. The pain is always most severe when this disposition exists, and is often of an intermitting character, being worse at night. So great was the agony in one woman with a swelling from this cause on the lower part of the tibia, that greater part of the night was passed in pacing up and down the ward. In her it was of many years' standing, and had been often treated. When abscesses form in broken constitutions, such as this man's, they are of a dull purplish red, edgy, and from the diseased bone, very difficult of cure. The best way appears to be, to open them

freely, dress from the bottom with red precipitate and lint, and on the appearance of granulations to touch with the sol. argent. nit. and apply a strap. The first favourable impression on the pain was by acupuncture.

ON FAILURES IN LITHOTOMY*.

[Continued from p. 698.]

CASE IV.—Fatal case, from injuries to the Bladder, in attempting to extract the remnant of a Stone.

THIS was a young man of eighteen years of age, who had for some years been suffering from a stone in the bladder, and having made up his mind to have it removed, placed himself under the care of a good operating surgeon for that purpose.

Nothing could be better than the style in which the operator reached the bladder, by his superficial and deep incisions; the prostate cut, (with the knife,) the forceps introduced, and the stone seized. Unluckily, it broke in the gripe of the instrument, and notwithstanding the means employed, which lasted for a very long period, the fragment of stone was left in the bladder.

A few days passed without developing any very bad symptoms; there were, indeed, some slight pains about his loins, and a little tenderness about the lower part of the abdomen, but not of a kind to require active treatment. Soon, however, irritative fever showed itself; he wasted, and died a fortnight after the operation. The difficulty of using the forceps, of catching hold of the stone, in this case, probably arose from a portion of the bladder having contracted upon it; for the forceps would seize the point of the stone repeatedly, and so frequently slip from its hold.

This contraction, however, did not subside, as it is said to do, after some time had elapsed, for the operation lasted nearly two hours without this subsidence taking place; and that a spasmodic contraction alone held the stone thus firmly, is probable, from its being found loose at the bottom of the bladder after death.

The following is the report of the dissection given to me:—

Secit Cadaveris.—"The intestines, liver, and the whole of the digestive organs, were in a healthy state. The right kidney was in a state of suppuration; the left contained fetid serum. The ureters were enlarged, their coats being much thickened, and highly vascular. The coats of the bladder were full half an inch thick. The internal part of it was every where covered with black fetid mucus, except the fundus, which appeared more healthy, but inflamed. A piece of stone

was found in the lower and back part of the bladder. The prostate gland was hardly any thing else but a mass of fetid matter."

This young man unquestionably died from the long continued violence of the operation, in the attempt to extract the portion of stone. The condition of the prostate gland, the kidney, and bladder, sufficiently proved the fact, that their injuries, by the production of a hectic or irritative fever, destroyed the patient. The operator was placed under trying circumstances—to take the stone or leave it; choose which he would, there was mischief in his choice.

Perhaps, however, too much fear is entertained of leaving a fragment of stone in the bladder; but should not this yield to the greater and more rational fear of increasing and contusing the prostate and bladder, by a violent operation; of long continuance, in a vain attempt to extract it? Why not leave it there, when moderate and well-directed exertions have failed to remove it?

We know that stones in the bladder have passed away safely, through the external incisions repeatedly, many days after a fruitless operation to remove them; but, it is probable, a patient rarely escapes death, whose bladder and prostate have been at once bruised and torn by the forceps, or pinched and rubbed by them, during a long operation. We also know, from experience, that delaying the extraction of a stone, where it would have been highly dangerous to have attempted its immediate removal, has been purposely practised with safety*.

Nothing can be more dangerous than rubbing, or perhaps pinching the bladder, for an hour or two, with the blades of the forceps. Leaving the stone to its chance of a natural exit, had we sufficient moral courage to do so, would be incomparably preferable to this treatment.

On the whole, therefore, and in a case similar to the foregoing, I should prefer relinquishing the fragment of stone, rather than continue a violent irritation in searching it out, or in vain attempts to pluck it from the spasmodic grasp of the bladder. There is an evil to be apprehended in both practices, but the least in that which requires the least violence. The spasm of the bladder, which holds the stone, may subside; and in such a case, the stone might be expected to offer itself at the external opening.

The spasm, indeed, is more likely so yield after the teasing of the bladder has been withdrawn, by a cessation of all further attempts. This was certainly the case in the foregoing example. As long as the excitement from the operation lasted, so did the spasm which held the stone. It is, indeed, a law of all spasmodic actions, that they last not long if their source be removed; and

* From Mr. Fletcher's Medico-Chirurgical Notes and Illustrations.

* See Covillard, —Observat. Med. Opin. Liv. 4. Collet. Traité sur la Lithot. p. 178.

this would seem to be an additional argument for leaving a fragment of stone in the bladder, at least for a time, under the circumstances already described.

That the mucous lining of the bladder is prone to inflammation, to a degree that cannot be sufficiently impressed upon the mind of the surgeon, is clear, from the following interesting case, which is an additional proof of the caution and gentleness required in the treatment of this viscus.

CASE V.—Death, from sounding for a Stone.

A very engaging little boy, of six years of age, was brought to a hospital, with symptoms of stone in the bladder. He was sounded twice by the receiving surgeon, who satisfied himself, on both occasions, of the existence of a stone.

A day was fixed for removing it, and a large party of medical practitioners were assembled, to view the operation. The boy was placed in position, tied, and the sound introduced; but the operating surgeon could not now feel the stone, although he took the proper motions with the instrument for that purpose. The boy's bladder was full of water, the penis having been closed, and abundance of milt and water drunk about an hour before the scene which was now passing. "Let me try," said the consulting surgeon; he did so, but very roughly, and for no short period of time, with no more success than the operating surgeon. Another and another then tried, in succession, but nobody could feel the stone. Valid the whole assemblage of eight or ten visitors would have continued to hunt for the stone in this unfortunate boy's body, had not the operating surgeon very properly interposed, by saying, "Stop, gentlemen, if you please! this is my patient, and I fear you will do the bladder no good by proceeding further to-day." He was right, though his decision came too late. The little boy was carried to bed, complaining that his belly ached, and from that bed he was doomed to rise no more. Peritoneal inflammation of a very active kind followed, and in spite of the utmost attention, and early vigorous treatment, he died, on the fourth day from the date of the sounding, asking piteously and affectionately, though without avail, for his far distant mother.

On examination of the body, it was found that the inner lining of the bladder was highly inflamed, spotted red every where, and that its peritoneal covering, at the fundus, was glued to the intestines, which were, on all sides, inflamed, and smeared with lymph.

In addition to this melancholy illustration of the necessity of treating with caution and forbearance the human bladder, it teaches also another kind of practice than that which is common in our operations for this

If sounding for a stone is sufficient to kill

the patient, without the operation of lithotomy itself being performed, it is clear, that sounding at all, immediately before the operation, is a bad practice, if continued beyond the period of a ready and immediate striking upon the stone. The movements of the sound in the bladder must irritate the mucous lining, nay, very possibly inflame it in some degree, and then comes the succeeding and more violent irritation of the operation itself; and who could wonder, under such circumstances, fatal inflammation should follow? There can be no question, therefore, that sounding or ascertaining the presence of a stone in the bladder, by the surgeon and consulting surgeon, should be an act performed many days before the operation itself is executed, and that this preliminary measure, to any considerable extent, should never be allowed on the same day with the final operation.

On the present occasion, a sharp dispute arose between the operating and the consulting surgeon, as to the propriety of curing the patient, upon the strength of the fact that a stone had been distinctly felt by the operating surgeon, some days before the one at which the operation was to be performed. "If," said the consulting surgeon, "it was there a few days before, it is there now." There could be no denying of this position, and yet the operating surgeon was right in refusing to cut this patient without the consulting surgeon having satisfied himself also of the presence of a stone. In this particular case he was more than commonly right in saying, by his firmness, the operation from the discredit of a failure, but more especially, the unfortunate child from great additional punishment in an useless and terrible operation; for, as the remark and advice of the consulting surgeon were given subsequent to the sounding, the operation itself would have been, probably, both cruel and unavailing.

CASE VI.—Death, from continued violence in seeking for a small Stone, after the Bladder was opened.

A surgeon made his way very skillfully into the bladder of a little boy, in which a stone was distinctly felt, and he could, on the introduction of his finger, occasionally touch it. The forceps were introduced, with closed blades, and the point of the instrument every now and then would strike upon the stone, but when the blades were opened, and the surgeon endeavoured to grasp the stone, he found it constantly eluding their gripe, or slipping out of them. The operation continued in this way for nearly half an hour, the patient complaining greatly of how much he was hurt; but at length the forceps seized the stone securely, which was extracted with the utmost ease—for its size was singularly small.

The boy was put to bed, struck heavily

by the operation—he was cold, and somewhat torpid, with a very feeble pulse: and from this state he never recovered, although cordials and opium were given to him.

There was some, but very slight, tenderness of the abdomen on the following day; the patient was bled, and took opening medicine, and, of course, treated for peritonitis; but he died on the fourth day from the date of the operation.

On inspecting the body, no signs of inflammation could be detected in the bladder or peritoneum—all was pale and healthy. The bladder was, indeed, thickened, but this must have been the work of times past.

That this boy perished from the effect of a long-continued and worrying operation upon his nervous system, is sufficiently clear from the dissection, and also from the circumstance that he never rallied, but remained cold, with the peculiar torpid and fatal heaviness upon him, which is seen when little children are sent into hospitals, with dreadful burns about the trunk of the body. The destruction of the power of the brain and nervous system, by the violence of the shock, is the cause of death in both instances.

There is much variety of opinion as to the propriety of bleeding after lithotomy. Some practise it, and strongly recommend that it should be had recourse to upon the detection of any tenderness about the abdomen, notwithstanding a feeble pulse. There was certainly tenderness in this case.

For my own part, and from experience it is stated, I should be slow of bleeding after lithotomy, whilst evidence of decided prostration of the nervous system remained, in the shape of languor, indifference to external objects, sleepiness, and diminished temperature, even should some tenderness be present.

Above all things, it is presumed, the surgeon should be cautious in bleeding children under these circumstances, and especially gentle in his treatment of them during operation. It is very true, that in lithotomy children do better than grown persons; more recover. But this is to be accounted for on the ground that the operation in them is comparatively nothing. The stone is always small, and the operation throughout is much easier and quicker to perform, and, therefore, the little patient has less to endure; for the explanation of the greater success of lithotomy in children cannot be in their superior power of bearing suffering. Their irritability is greater, their nervous system sooner excited; and hence, in dentition, and in irritations within the alimentary canal, are we often obliged to witness the most distressing sufferings. It is probable, that the majority of deaths from lithotomy, in young children, is from the blow inflicted on the nervous power by the necessary severity

of the operation, and not from inflammatory actions set up by it.

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"I operated, in lithotomy, on a tall, well-made man, twenty-nine years of age, who had been upwards of two years suffering severely from the stone, but, though somewhat emaciated, and apparently of an irritable constitution, he appeared by no means an improper subject for the operation.

"In the introduction of the conductor I met with some resistance. I am not certain whether it was from my not having divided the muscles with sufficient freedom, and consequently the urethra, close to the prostate gland, or from my pressing the back of the conductor with too much force against the groove of the convexity of the staff. However, I resumed my knife, and divided the urethra and a very small portion of the prostate, and then the conductor passed with ease. The stone was readily laid hold of by the forceps, but the resistance was so great, that it was not without spending some time, and using much violence, that I could extract it.

The man bled very profusely, immediately after the coming away of the stone. However, after his legs were untied, and his thighs brought together, the hæmorrhage very much diminished, and he was sent to bed. He complained immediately of great pain just above the pelvis. After he was put to bed an opiate was given to him. A very little weeping of blood from the wounds was observed. An hour after I left him. I sent my pupil to examine if it continued. He brought me word, that there was a continuance of the hæmorrhage in an increased degree, and that the man was in great pain. I immediately went to him, and found him

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in the condition described. I perceived that the discharge, though thin, was not trifling, and, therefore, I concluded that it was chiefly the serum oozing from coagulating blood, and consequently that there was a considerable lodgment in the bladder. I gently dilated the wound, and had the mortification to find my opinion confirmed. I brought away a large quantity of coagulated blood. The poor man expressed a sense of great ease, but then the blood flowed most copiously through the external wound. I introduced my finger covered with lint, and took other alike ineffectual means to restrain the hemorrhage. Dr. Cheston was so obliging as to lend me his assistance. I tried a canula covered with lint dipped in astringent liquids, and a variety of methods, with little or no benefit. The man lost an immense quantity of blood. At length we left the wound to itself, and applying a solution of sal ammonia cold over the belly, and over the wound, and raw wetted in the same to the hypogastrium and between the thighs, the hemorrhage was entirely suppressed. The pain, however, continued. It increased during the night. The next morning his belly was sore, and somewhat tense. He was immoderately thirsty. He was sick, and troubled with frequent acid feeble eructations.

"He continued to grow worse and worse, and died on the fourth day.

"On dissection there was a considerable laceration of the bladder, in a variety of directions, though none of them extensive.

"It seemed that the hemorrhage was from the bladder, but this we could not fully ascertain. The peritoneum was generally inflamed, but there was no other unnatural appearance.

"I do not, upon a review of this case, see any thing which could have been done in addition to, or variation from the means used, unless it was that I should have made a more free wound in the muscles, if I had been aware of the size of the stone. For though the resistance was apparently altogether in this bladder, yet it is probable that the wound in that organ would have been sufficient, and the opening would have dilated, if I had by a very free and large incision through the muscles, removed all support to resistance, which the bladder itself had given."

There can be no doubt of the original incisions being imperfect in this case—that room enough was not obtained by them to transmit the stone easily, and that the attempt to force a passage lacerated the bladder, and produced fatal peritonitis.

The hemorrhage was great, but had no share in producing the death of the patient. On the contrary, it was a likely means of preventing or checking the growth of the peritoneal inflammation which followed; and that it did not accomplish the desirable event,

furnished an additional and most powerful reason for our being constantly upon our guard to avoid violence, which may produce an inflammation, so often intractable, and quickly fatal. In the present case it was scarcely controlled by the loss of more than three pints of blood;—its undoubted origin was the violent working of the forceps.

The case has other points of interest, which the reader will readily discover and appreciate.

CASE VIII.—*Peritonitis from violence in operation; from which the patient partly recovered, though he ultimately perished of Abscess of the Pelvis and Kidney.*

"I cut a boy of ten years old. He lost a good deal of blood in the operation, from a branch of the pudica. In the evening his pulse was frequent, but in other respects he was doing well. In the night he complained a little of his belly. The next morning, his pulse being frequent, and his belly somewhat tense, I took from him about eight ounces of blood;—by the time of his having lost it, his lips became pale, and he shewed signs of faintness, and soon after was a little sick, and a profuse sweat broke out. His pulse grew a great deal quicker, and smaller, and it is scarcely credible how rapidly the peritoneal affection increased. Before the bleeding, he could bear his belly to be struck gently, or to be handled without pain. It was not so much swollen; but within half an hour after the blood had been drawn, the abdominal region became universally very much swollen, tympanitic, and exquisitely sore to the touch. He appeared to be in a great deal of pain, and his countenance grew expressive of great distress. His pulse was uncommonly quick and feeble, probably at least 180. He had had no stool since the operation. His urine was freely discharged through the wound, and some had passed through the urethra.

"Clysters were given him, a blister was applied to the false ribs on one side, and a sinapism to the other. Warm fomentations of poppy heads, decoctions, and crude sal ammonia, were used to his abdomen for an hour or two; but they seemed to do mischief and to increase the pain and the swelling. Infos. Senn. cu. P. I, was given him, and afterwards some Ol. Ricin, after using the fomentations for two or three hours. Finding this afforded no relief, I changed them for Spt. Vin. Camph. cu. Tinct. Opū, applied cold, which seemed to lessen both the soreness and the pain. The next day he was better, the soreness of the abdomen was lessened.

"The twenty-first day after the operation he died. In the course of seven or eight days he was very much attended, having natural stools, and a great part of the urine passing through the urethra. His abdomen was free from pain, but his pulse was al-

ways quick; his appetite did not return; he had generally upon him a thirist, and his tongue was in general whitish; nor had his abdomen a natural feel; so that it was pretty evident there was some latent mischief, though of what kind I could not tell; beside, he every day grew more and more emaciated. His nights, though not painful, were disturbed. The nurse observed that his water was often whitish.

"Upon opening his body, I found the bladder contracted to a very small size, so that its cavity would not have contained more than two or three spoonfuls of urine. It was nearly half an inch in thickness;—red spots, as of inflammation, appeared here and there on its mucous coat, which, however, seemed in no place to be ulcerated.

"The wound which was made by the operation, and which, probably, had been somewhat increased in magnitude by ulceration (*for the sides of the wound had sloughed*), appeared to be larger than I expected, or intended it should have been; for the prostate gland was completely cut through, and the incision was continued quite through the neck of the bladder; the orifice of one of the seminal ducts was obliquely wounded, notwithstanding the great care which I took in directing my prostate knife.

"One kidney was very little altered from a natural state; its pelvis, however, and the beginning of the ureter, were very much enlarged. The other kidney was merely a leathery cyst, full of matter, but a great deal diminished from its natural size. In the neighbourhood of the bladder, the intestines were adherent one to the other, and appeared to be considerably inflamed. Upon tearing the adhesion through, the posterior part of the pelvis was found full of thin pus; probably there was a pint and a half of that fluid. The sacrum was even bared by its action, and the rectum was loosened from its attachment to it.

"Remarks.—It is a good maxim for a surgeon, when he has lost a patient after an operation, always to suspect that, in performing it, he was guilty of some error or oversight. For if he persuades himself that he has done every thing right, he is precluding himself from the very chance of improvement. Now, to criticise upon my own operation, I suspect that I made the wound with my knife too deep within the pelvis, by which means the peritoneum was too much exposed, and probably was bruised in the extraction of the stone; secondly, I suspect that I did not make my wound far enough in the urethra, that is, towards the bulb, but that, if any thing, I leaned too much towards Raw's method of cutting, instead of rigidly adhering to Cheselden's lateral method, as described by him, but more particularly by Bromfield.

"I rather think that in small subjects the

neck of the bladder is completely divided, almost always, though in adults that it is not the case, on account of the greater size of the prostate."

As in the former case, so it will be seen in this, that the great loss of blood did not prevent the occurrence of peritoneal inflammation, which was probably the effect of the rough use of the forceps; and this was evident by the sloughing condition of the wound into the bladder, or the points on which the instrument acted: or, to take the operator's own explanation, it was violence or bruising, of some sort, unnecessarily bestowed, either by the knife, or in the extraction of the stone.

Nor was Mr. Trye an unlikely person to commit such sort of violence occasionally. A good operator generally; in lithotomy he was a master. But like many other operating surgeons of great eminence, distinguished by the splendor and success of their undertakings, his high qualities of boldness and decision—the offspring of a superior anatomical education—would sometimes run a little wild, and be mischievous. Knowing what he could do, he was now and then somewhat proud of his really fine talent, and gave his patient no quarter. In plain English he was rough: and at times, and seasons when roughness might well have been spared;—but, in his roughness, lay the stern proof of his uncommon excellence as an operator,—a rare union of science, with a cool, calm courage, that was never known to flinch, or be for a moment disturbed, by the most embarrassing circumstances of blood and difficulty.

The foregoing eight cases are the whole number of deaths (with the exception of one), which followed the operation of lithotomy, or attempts to perform it; and the whole that perished out of fifty-nine operations, which have been performed within my knowledge. They all died from violence.

Whilst it is admitted that the success of the operation, in the number of lives saved by it, was greater than usual—yet it may be safely affirmed, that, with the exception of the first, and perhaps the third case, the entire loss of life arose from a violence that may be deemed unnecessary; which, with ease, coolness, and constant reference to the principles of the operation, might have been avoided, and the patients' lives saved.

It may so happen, indeed, that, in irritable subjects, the ordinary violence of a well-conducted operation would be sufficient to excite some of those fatal affections which destroy life from lithotomy. But, amongst the foregoing cases at least, there is no proof that such was the fact. Marks of unnecessary injury were visible in all which were examined, and which satisfactorily account for the death of the patients. But, to prove

that excessive irritability of constitution, excited by a more gentle operation, was the cause of one or other of the destructive morbid affections which destroy life after it, it would be necessary to shew that no marks of excessive violence could be traced upon the parts by dissection.

There is one particular case in which the mark, or proof, is left only in the constitution. Circumstances will sometimes arise, which will unfortunately cause a protraction of the ordinary or necessary violence to be continued for a very long period.

Here the nervous power is exhausted by the long-continued irritation; the patient never rallies, but, in a few days, drops, without a struggle, into the grave.

In the first case detailed, or that of a large stone, but where the openings by the knife were made very free, the violence used in extracting it cannot well be called unnecessary; for, unless there are certain means in the power of the surgeon to break the stone, (which is not the fact,) he must either pull it away by main force, or leave it in the bladder. The last is rarely done, if the surgeon's personal strength is sufficient to accomplish this deed of butchery. But such is human nature, that it is much to be feared the patient's safety is not enough considered amidst the desperate and excited feelings of the moment, which occupy the mind of the surgeon:—self-love and pride are awakened, and he will too often be eagerly thinking,—if he thinks at all,—of success, come how it will, rather than allow his reputation to be disgraced, by not obtaining possession of the stone.

This, in the refined language of modern times, would be called a moral weakness,—but perhaps there is an error in the term, could it be shown that, at such a fearful period, the surgeon was quite master of his understanding.

But why, it is humbly inquired, is the lateral operation performed at all, where the stone has been ascertained to be above the safe size for extraction in that direction? It is surely any thing but a scientific operation to force a rough stone, by such a route, as big as your fist, through an aperture, in a delicate and important part of the human body, only one inch wide!

But, if you have done this yourself!—True; and all I can plead is the sanction of my betters, and the improbability, nay, impossibility of doing otherwise, in the lateral operation, with a stone—impenetrable—and nearly as hard as flint.

Upon the detection of a large stone, (and no man should undertake lithotomy without being previously acquainted with its probable size,) I would relinquish all thoughts of the lateral operation, for with our present knowledge, that mode allows of no certain

method of disposing of such a stone. We all their disadvantages,—and they are so—as will not admit of comparison with the lateral operation, when the stone is not very large,—I would prefer the recto-vesical or median section, when it is of a great size. If the fears of fatalous remains, or injury to the seminal ducts, should make surgeons object the first, the last method is free of all objections. The bladder is opened the shortest road, the wound admits of the greatest dilatation, being exactly in the centre of the outlet of the pelvis, and surrounded by soft parts only. As to the danger of wounding the seminal ducts by the first method, it is by no means an accident confined exclusively to the recto-vesical section, inasmuch as in Case VIII. of these notes, it will be seen that this important vessel was cut by a separate lithotomist, in performing the lateral operation. This last, however, in a general way, is probably superior to all other methods of cutting for a stone; but, in the particular case of a large stone, the median section, the last pointed out by Professor Vena, is the one which would oppose the least obstruction to its passage, and where the operator could not be embarrassed, in the delivery of the stone, from having cut a large vessel, which, in this mode of operating, is altogether impossible;—and which circumstance is of great importance, and vastly in its favour,—for nothing can be conceived more embarrassing, among all the difficulties of lithotomy, than to encounter, at the same time, great hæmorrhage and a very large stone.

APOTHECARIES' HALL.

Names of Gentlemen to whom the Court of Examiners granted Certificates of Qualification on Thursday, August 18, 1851:—

Hen. Augustus Betts.	Salter Livesay.
William Elliot.	Richard Roe.
Thomas Eden.	Thomas Salt.
Edward Ingram.	

BOOK RECEIVED FOR REVIEW.

Papers relative to the Disease called Cholera Spasmodica in India, now prevailing in the North of Europe. Printed by Authority of the Lords of His Majesty's Most Honourable Privy Council.

NOTICE.

Dr. Prout's answer to Dr. W. Philip, in our next.

W. WILSON, Printer, 57, Oldman-Street, London.

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Medicine and the Collateral Sciences.

SATURDAY, SEPTEMBER 3, 1831.

DR. PROUTS REPLY TO DR. PHILIP.

To the Editor of the London Medical Gazette.

Sackville-Street, August 26, 1831.

SIR,

I was a good deal surprised at Dr. Wilson Philip's observations on my lectures, in your No. for Aug. 20, which, as far as I am concerned, appear to be founded on mistake from beginning to end. Since these observations were published I have seen the Doctor, and succeeded, I believe, in convincing him of his errors—on some points at least; but as the observations have been made public, they require a public answer.

In the introductory observations to the first lecture, it is observed that almost all our reasonings on physiological subjects are either of a mechanical or metaphysical nature. Now it need scarcely be observed that the term *metaphysical* is here used in a general sense, and as opposed to *physical**; but, to prevent the possibility of mistake on this point, a few lines below, the nervous or living principle, or rather ac-

tion, is expressly included under this term. Near the termination of the same lecture, there is a paragraph which Dr. P. quotes at length, in which the same term is employed in a similar sense. The substance of this paragraph is, that chemistry may be considered as holding an intermediate rank between anatomy, on the one hand, and metaphysics, or living action, on the other; and that, while these two extreme branches of knowledge have been cultivated to the utmost, comparatively, little has been done in chemistry (the expressly assumed *intermediate science*) for the last twenty years.

With all this before him, however, Dr. P. most unaccountably mistakes my meaning, and observes, upon the quotation above alluded to, "The questions which this passage suggests are, how far does chemistry fill the intermediate space between metaphysics, the science of mind, and anatomy, to which we owe a knowledge of the structure of the body; and *has, in fact, no advancement of any importance been made in this intermediate space for the last twenty years?*"

Dr. P. then proceeds to consider these two questions in detail; but, as might be supposed under such circumstances, most of his observations are irrelevant, and do not require an answer. There are, however, a few points incidentally touched upon, which I think it right to notice briefly.

1. Dr. P. remarks, upon the assumption of the living agent as an ultimate principle, the nature of which is beyond our comprehension, that this may be "a very scientific, and perhaps a just, explanation, but one which, from the nature of things, cannot be brought to the test of experiment, and which, be-

* I need scarcely observe that the term *physics*, almost everywhere but in this country, is used to designate what we term *mechanical* or *natural philosophy*; while *metaphysics*, "the science which considers beings abstracted from all matter," may be considered, in this general sense, as contrasted with or opposed to it. The term *psychology*, was meant to be contrasted, in the same general manner, with *anatomy*—in the sense of *inanimate* and *animate*, or *corporeal* and *incorporeal*. After the lectures had been printed, I regretted that I had used these terms, thinking it probable they might give origin to some verbal dispute; though I scarcely thought that the sense, whether right or wrong, in which they were used, could have been mistaken. Indeed, Dr. P. evidently saw the sense in which these terms were used, and had he confined his criticisms to this point I should have thought nothing about the matter, as the subject, I admit, is fairly open to criticism.

it observed, on the supposition of its being correct, includes a *principle that operates only in the functions of organized bodies, and whose effects we can never even hope to see exemplified in unorganized nature.*" To which I reply, that it is not in general necessary to the understanding of a process, that we should be able to comprehend the abstract nature of the agent performing it, or to imitate the process ourselves artificially. Even in common chemistry, how little are we able to do in this way! What chemist, for example, professes to understand the abstract nature of the cause of chemical action, or will undertake to imitate exactly even the commonest mineral?—yet he does not doubt its composition on this account. So in organic chemistry, though I cannot imitate nature's processes, this does not prevent me from understanding them. I cannot, for example, make sugar or albumen; but analysis and observation will enable me to understand the composition and laws of change of these substances. If nothing were admitted in chemistry but what can be proved synthetically, the science would, indeed, be contracted within narrow limits.

2. Dr. P. in attempting to explain the effects of inflammation chiefly on mechanical and metaphysical principles, concludes, "I therefore conceive, that here the laws by which the increased quantity of blood in the vessels, however occasioned, is capable of producing the effects just detailed, and on which the relief obtained by lessening it depends, are *those which chiefly demand the attention of the physician.*" The mechanical expedients of bleeding and purging are, and ever must be, no doubt, the means to be chiefly trusted to in inflammatory affections; but notwithstanding this, I never could bring my mind to believe that the effects of inflammation are merely of a mechanical nature. Admitting them, however, to be so, how many diseases are there which are *not* inflammatory, and in which, consequently, something more than mere mechanical expedients demand, or ought to demand, the attention of the physician: now in such affections it is that chemistry, perhaps more frequently than any other science, steps in to his aid, and enables him to detect derangements, and apply remedies, that no mechanical or metaphysical knowledge would have suggested to him? for so far from chemistry being principally

limited to urinary diseases, as Dr. P. imagines, there is scarcely *any disease* more especially of the assimilating functions, in which it may not occasionally be advantageously applied.

3. The alimentary matters most proper for a healthy human stomach are solids, or, at least, solids partially reduced by cooking; and this power of reducing solids to a fluid state, may consequently, be justly inferred as constituting a portion of the functions of this organ. But in some forms of dyspepsia this portion of the functions of the stomach is very much impaired, and in this case solids are very apt to disagree, by promoting acidity and all its consequences. In this state of the stomach, "when the reducing powers of the stomach are weak," I have particularly recommended the adoption of French cookery, in preference to a crude English diet of beef-steaks, &c.; but Dr. P., by some unaccountable mistake, makes me recommend this kind of diet generally in all affections of the stomach—a thing I never dreamt of. I believe, however, that a portion of this kind of aliment (not too fluid) is more generally proper than is at present supposed, particularly among the sedentary and dyspeptic inhabitants of towns.

4. I have said that crystallized sugar is, generally speaking, an unwholesome article of food; and I believe so still, particularly in certain forms of dyspepsia. Dr. P. admits that it sometimes offends the stomach, but contends generally for its wholesomeness. To this I reply, that the pernicious effects of sugar, like those of alcohol, are generally much less felt in the stomach than in other parts of the system. Thus a diabetic patient can generally take as much sugar as you please, and with impunity as far as the stomach is concerned; but notwithstanding this, will any one contend that sugar is proper food for him? Indeed, I must say, that, as far as my observations go, the stomach is often a very bad judge of what is right, and what is wrong, in matters of diet. Dr. P. concludes this part of his observations by triumphantly asking, whether these, and certain idiosyncrasies with respect to diet, &c., which he enumerates, can be explained by chemistry? to which I answer, no; but I will venture to assert, that they never will be explained *without* chemistry.

The second part of Dr. Philip's observations is entirely confined to his

own discoveries, and which, by mistaking my meaning, he has thought it necessary to bring forward as examples of what has been recently done in physiology. With these I have nothing whatever to do, but shall merely observe that, as a chemist, I cannot help regretting that they had not been carried on in conjunction with this science; in which case some of the results would, I think, have been more perfect and satisfactory; for it has always appeared to me that the physiologist who confines his attention solely to the laws of living action, takes a very limited view of his subject, and is quite as likely to be led into error as the mere anatomist, or chemist, who neglects these laws altogether. The living principle is only known to us in conjunction with material organization; the study of physiology, therefore, has been very properly supposed to include the laws of living action, on the one hand, and anatomy, or the structure of organs, on the other; but as neither of these branches of inquiry gives us any insight into the nature of those important changes constantly going on in the living animal, and which appear to be necessary to its existence, something more is obviously required to render the science complete. This something, I conceive, is best supplied by chemistry; and my object in these lectures was, *not to depreciate*, much less to *supercede*, the mechanical and metaphysical branches of physiology, as Dr. P. seems to have supposed, but to point out the importance of chemistry, and its capability, *when rightly applied*, of filling up, to a certain extent, the intervening chasm between the other two branches of the science, and thus of rendering it more complete.

Your obedient servant,
WM. PROUT.

CHOLERA MORBUS.

To the Editor of the London Medical Gazette.

SIR,

THE first case to which I was called was a very severe one, and it yielded speedily to calomel, opium, and small doses of magnesia. Magnesia, calomel, and opium, seemed therefore to be the proper remedies, and for a short time I proceeded with satisfactory precision; but I soon found that the purging continued in some cases, despite of my in-

fallible remedies; and then the chalk mixture, with aromatic confection, seemed a very prudent addition. Suddenly, however, aromatic confection, chalk mixture, opium, calomel, and magnesia, entirely failed, and I was driven back upon my own resources. I called to mind the cajeputi oil, which I administered with marked and determinate relief. The cajeputi oil next failed to allay the vomiting, which was decisively checked by a mineral acid; and I lastly discovered that a mineral acid, with opium, was a very speedy and efficient remedy in the milder forms of the disease. After these failures and successes the conclusion at which I have arrived is, that, in the milder cases, magnesia is a sedative, by acting as a chemical substance in the neutralization of some unnatural acidity; that, in the severer cases, cajeputi oil, or a mineral acid, is efficacious by acting as a powerful styptic and a non-stimulating tonic; and that opium is a useful and necessary adjunct under all circumstances, by soothing the morbid irritability of the stomach. The kind of practice, and the particular remedy, can never be predetermined in the treatment of any complaint; for the mode of treatment must be judiciously varied, according to the age, sex, and constitution of the patient, and the intensity of the diseased action. I do not think that it would be wise to check the discharges abruptly in the milder cases, since any evacuation established by nature may be salutary, so long as it be not excessive. It is, however, probable that if the disease were permitted to pursue its own course, the patient would die of exhaustion, and that the mucous membrane of the intestines might, possibly, be found spiculated.

Of the cause of cholera morbus many conjectures may be framed. A state of atmosphere at once humid and of an uniformly elevated temperature, would lessen the quantity of cutaneous perspiration and pulmonary exhalation, while, by interfering with two important excretions, it would dilate and disturb the whole circulating system, and throw a larger quantity of fluid to be excreted by the kidneys, or by the bowels; and if the kidneys refused to act, the bowels would become the only remaining outlet: moreover, if any sudden electrical changes should happen at the same time, the body would be also debilitated and relaxed. I will not decide whether

such have been the atmospherical changes during the last six or eight weeks, of which I have made some careful notes; for this conjecture concerning the cause of cholera morbus has been offered, and it is to be accepted, only as a probable conjecture. It would be requisite to institute very extensive observations, subservient to pathology, throughout England, and throughout all tracks of the world from Hindostan to Russia, whithersoever the cholera has travelled, before any definite opinion could be offered upon the subject; and it may be reserved for a future generation of men to recognize the existence of an universal principle, which can regulate the origin, progress, duration, and violence of disease, in all its protean forms and combinations. An extensive region lies open and uninvestigated before the diligent physician; but its boundaries and dispositions will never be known by gathering particular facts and single observations, instead of endeavouring to explore its universal character. And here is the error under which our science now labours; medical men, like other philosophers of the present day, are lost in a crowd of infinite particulars. The true spirit of philosophizing is generalization; and generalization, however false, will ultimately lead to a generalization absolutely true. Wherefore, without some universal principle to act upon, it will be very difficult to come to any conclusion as to the morbid influence of atmospherical changes.

All that has been here written is perhaps concerning a disease very different from the *true cholera morbus*; nevertheless, I am conscious of having copied from nature; and if the picture be faulty, the fault lies, not with the object, but in him who copied.

Let us, for a few moments, revert to the writings of Sydenham, the patriarch of English physicians, and ascertain what were his opinions concerning this disease. It happened in the year 1669, and had been absent from England for ten years; it acceded towards the close of summer, in the month of August, and was characterized by the following symptoms: vomitings, purgings, and tenesmus; thirst, heat of the stomach, and anxiety; a small rapid pulse, faintings, sweatings, "contractions of the arms and legs," prostration; it was sometimes fatal in twenty-four hours. This was not the same disease as that

which has now invaded our island. The present disease is not marked by tenesmus, nor by a "quick pulse," nor by "contractions" of the arms; Sydenham speaks indefinitely of the cramps, and is almost silent concerning the profuse fluid evacuations. He seems to have possessed no certain treatment for he was afraid of purgatives, and unwilling to make use of astringents, and after much solemn consideration he at last arrived at a very sapient mode of practice. "I found out this method," he says, "several years ago, and have long experienced it; and have by many times reduced the disease to good order." A poor chicken was boiled in three gallons of water, "so that the liquor had scarcely any relish of the chick." With this liquor the patient was drenched; and a plentiful inundation was made of draughts and clysters, "until all the broth was consumed, and then evacuated upwards and downwards." Some syrup, made from a pretty nosegay of lettuces, purslain, violets, and water-lilies, was occasionally added, "though," as Sydenham ingeniously confesses, "the broth will do very well without such addition." This singular operation entertained the patient, the physician, and probably a decent circle of friends and relations, for three or four hours. At length the chick defeated the cholera; the patient was alleviated; and an appropriate dose of opium composed the agitation—the "hurly-burly" (so says the translator of Sydenham's writings,) of the abdominal viscera. (See Sydenham's works, translated by J. Peckey, M.D. London, 1734. Cap. ii. p. 114.) If the patient was unseen or neglected during the first six or twelve hours, or the physician did not arrive till "the sick was worn out, so that the extreme parts waxed cold," then the only means which could save the patient was an anodyne; and it may be here remarked, that Sydenham seems to have been very ready, and, according to his own account, successful in the exhibition of laudanum. Some practitioners dissent from the frequent use of opiates, while others as frequently rely upon their efficacy; but the truth is, that many a drug is like Orlando's trusty blade, which required Orlando's arm to wield it: in the hands of an unskilful possessor it might become either dangerous or useless. And hence it is that each man is so fond of his own remedy, and

that different practitioners accomplish the cure of the same disease through the medium of different remedies. Individual dexterity depends upon experience and habit.

And so much for the cholera morbus of 1669 and 1831; and so much for my opinions, which, like the opinions of many other men, may be fit only for Astolfo's palace in the moon.

I think it but right to put you in possession of the three following cases, of which you can make what use you please.

CASE I.—August 4th I was called to Mrs. J. H.—, a female of a tall spare condition of body, and of active habits, upwards of forty years of age. Last night, about twelve o'clock, she was roused by pains all over her limbs, and cramp in the belly, speedily followed by vomitings and successive alvine discharges profuse and fluid. These evacuations I did not see. About nine o'clock, A.M. I was sent for, and found her pale, insensible, covered with a damp cold sweat, the lips blanched, and the veins on the back of the hands collapsed; the pulse weak and little, and the respiration low. She had just vomited something dark, like coffee, and the bowels had just been copiously evacuated. The belly was tense and painful midway between the navel and ensiform cartilage; the pain was not increased by pressure. The tongue was quite clean, smooth, and moist. There was painful micturition. She was stretched horizontally on the carpet till a convenient bed could be prepared; hot bottles were placed against her feet, and the whole body was enveloped in a blanket. She had just swallowed a dose of castor-oil. I gave her one grain of opium and five of calomel. She became easier, but she remained cold, with a dull pain over the stomach. A draught composed of aromatic spirit of ammonia, sweet spirit of nitre, and tincture of opium, was given. The draught felt hot in the stomach, the veins at the back of the hands became full, and the radial pulse dilated; but the peristaltic action of the bowels seemed to be increased by this diffusive stimulant, and the stomach to be offended at the draught, which, together with the castor oil, was soon rejected. Towards noon she became hot and flushed, and the pulse became round and full, at 80. She complained of much thirst, and the tongue was

clean, but dry; the stomach was easy, and the bowels quiescent. One drachm of the carbonate of magnesia was given every four hours, and toast and water was supplied as the readiest and most acceptable beverage. In the evening she drank and relished her tea; and at ten o'clock in the evening, rather more than twelve hours after my first visit, she was in bed, with a moist and warm skin of its natural colour, red lips, clear eyes, clean and moist tongue, easy stomach, quiet bowels, and a soft steady pulse, 72. She was now lying on her left side. During the night the bowels quietly relieved themselves of a small quantity of yellow fluid, of a feculent odour; which evacuation afforded much relief and satisfaction. She made no urine. She partook of beef-tea, and continued the magnesia every six hours. From this time she recovered; the bowels quietly returned to their duty, and in a few days she was quite well, except that she suffered great lassitude; which was counteracted by regulated doses of the dilute sulphuric acid.

The tongue is said to have been clean and moist. The moisture was not that of health; it should be said that the tongue was *not* dry. The mouth and fauces were in this case deprived of fluid, and the patient craved to have them moistened.

CASE II. August 12th.—A gentleman, 63 years of age, of a florid sanguineous temperament, very temperate in his habits, and very attentive to the condition of his bowels. Yesterday his abdomen felt full and distended, and the bowels were somewhat relaxed; in the evening he was exposed to a heavy rain, after a hot sultry day, the thermometer standing at 79 degrees, and the wind being from the north-west. When he went to bed he felt bilious, and took a calomel pill; about two o'clock, A.M. he awoke, and felt a desire to go to stool. He arose, staggered, sank, and fainted. He parted with a copious fluid stool, being at the same time bedewed with a cold clammy sweat. There was neither griping nor tenesmus; the desire to go to stool was gentle, though imperative, and the fluid streamed out without an effort. The evacuation was of an earthy smell, and seemed like water of a light straw-colour. He crawled into bed, and was shortly after seized with cramps in both legs; he

started up and vomited, while another copious fluid evacuation quickly washed out the alimentary canal.

I found him (3 A.M.) faint, with a feeble voice, stretched upon his back in bed, the bowels threatening to be again discharged. I instantly gave him a grain of opium and one scruple of the carbonate of magnesia. He became easier, and the pulse, which was lowered by fainting, rose to its natural standard. The violence of the symptoms was at once mitigated; the bowels continued to drain, but without fainting, and the vomiting returned, but it was checked by the magnesia. The magnesia seemed to act like a sedative—perhaps by neutralizing some acid generated in the stomach, and in this manner soothing the irritated nerves. The vomit smelt and tasted acid, and was yellow and turbid. The tongue was white, and scarcely moist; inordinate thirst prevailed, and he was permitted to quench it by draughts of veal broth. During the day he took a second grain of opium, and continued the magnesia every four hours. In the evening the tongue was beginning to clean, the stomach and bowels were passive, he took a third grain of opium, and slept. The pain over the pit of stomach had not gone; it was wearisome, but not severe.

Some pints, nay quarts, of fluid must have been parted with, the last quantities of which were colourless.

The next morning I found my patient much improved; he had passed a tranquil night, but he rose up weak and thin, the features being visibly sharpened, and the complexion being of a dull blueish hue. He was directed to persist in the use of the magnesia, and to partake of veal broth and of bread and milk. The bowels were at first distended with gas, which was discharged in the manner and with the inclination of passing the *feces*, and then they kindly returned to their duty.

For the three following days he made scarcely any urine, and the thirst was still great. On the fourth and fifth day all the functions of the body seemed healthy, but they were proceeding at a lower gradation of health. Apathy of mind and body ensued. This gentleman is now quite well, and considers himself by no means the worse after so great a drainage.

I now fancy that I might have cured this case expeditiously by the use of the

cajeputi oil; as it was, my treatment was merely palliative, and only prevented the disease from becoming excessive.

CASE III.—A poor old woman, aged 72, had been labouring under a long complaint, but, as she was in poverty, she was unwilling to send for me. To-day, August 22d, she was at last obliged to send, saying that she had vomiting, purging, and sweating. I sent five grains of the soap-pill with opium, to be taken immediately, and half a drachm of the carbonate of magnesia as often as she was sick. About one o'clock, as soon as I reached home, I received another message, to say she was much worse. I went and found her pale, cold, covered with a chilly dampness, faint, and prostrate, but quite conscious; the pulse was steady at 80, rather contracted; the tongue clean and smooth. She was suffering terribly from cramp in her legs; she was being purged of an opalescent fluid, which poured from her in profuse quantities, and she was vomiting up a similar fluid. Her stomach, she said, felt as cold as water; she complained of a most oppressive pain above the navel, and she laid her arms across her stomach. Three grains of calomel, with two of opium, were given directly, and the chalk mixture with aromatic confection was administered. One hour afterwards she was much worse. The countenance was of a dingy hue, the eye sunk in the socket, the features contracted; the skin was very cold, and the cramps were fearful; nevertheless the pulse continued steadily at 80, but its volume diminished. She vomited and was purged while I was talking to her. I hesitated, being at a loss what to do. I hastened and brought back some cajeputi oil, of which I measured out twenty drops in a glass of water: she drank it. "That," she said, "is warm to my stomach." At the next minute she vomited up some yellow turbid fluid, was purged, and distorted by the cramp. Ten minutes after, the cramps subsided and the action of the bowels was restrained; in twenty minutes the cramps were returning, the bowels beginning to be active, and the stomach to heave: she swallowed twelve drops more. The cramps now ceased, and the bowels became quiescent; the pulse became fuller, and the skin warmer. At five o'clock I saw her again; she had been vomiting almost incessantly during my absence, and she had taken a third dose of twelve

drops of the cajeputi oil, which had been immediately rejected; but the cramps were gone, the bowels were quiet, the pulse was steady; and as she was at present free from vomiting, I thought it imprudent to be doing too much. Her breath was strongly scented with the oil, and so were the recent vomits, amounting to about a pint of yellowish fluid. Her mouth was moistened with beef-tea, of which she occasionally sipped a small quantity. The vomiting, however, returned, and continued at intervals till ten o'clock at night, when some half-drachm doses of the dilute sulphuric acid immediately and permanently checked it. She fell asleep, and the next morning she was quite free from any unpleasant symptoms, except great debility of mind and body—sheer exhaustion. No urine passed. Her situation is still doubtful, for at 72 years of age life easily becomes extinct.

JAMES ANSLEY HINGESTON.

Finchbury Place, South,
Aug. 25, 1831.

[*Note.*—In my letter on the atmospheric changes during the late influenza, which you did me the favour to publish, there is a slight mistake:—"the frosty air-burnt froze." This is wrong. It ought to be, "the parching air-burnt froze, and cold performed the effect of fire."—*Paradise Lost*, book ii. line 695. I quoted from my memory.]

CONTINUED REMARKS

ON THE

USE OF CAMPHOR AS A LOCAL APPLICATION IN SOME DISEASES.

To the Editor of the *London Medical Gazette*.

SIR,

In my last communication to you, I concluded by stating the convalescence of my patient, who had been suffering from what is generally denominated puerperal fever. When I wrote to you, she had occasionally complained of uneasiness in the left leg, and in the region of the uterus. Engrossed perhaps by what had been previously passing, I entertained no suspicions of any consequent mischief; but on the morning of the 16th, she was suddenly seized with

excruciating pain in the calf of the left leg, which quickly extended itself over the whole limb, affecting even the contents of the pelvis. There was great tenderness on pressure over the os pubis; the bowels had not been relieved for some hours. I ordered a dose of castor oil to be administered. In the evening, when I called, I found the limb exquisitely tender, swelled, and œdematous around the ankle and the instep, on the calf, and on the inside of the thigh and groin, and the whole leg perfectly blanched; nor was this appearance confined to the limb; it was to be observed more or less over the whole surface of the body; great anxiety of countenance; pulse 120, and very weak; she had fainted four times in the course of the day from the agony which slight exertions produced; the oil had operated three times. I ordered five grains of the Pil. Sap. c. Opio to be given immediately, with two grains of the Sulphate of Quinine; the Quinine to be continued every four hours, and the limb to be enveloped in a flannel roller, steeped in the camphorated solution that was applied to the abdomen in the previous attack*. When I saw her on the morning of the 17th, she described the relief as almost immediate on the application of the roller; she fell asleep before the opiate reached her; however, it was taken afterwards, and the medicine administered through the night. Five hours sleep were procured. The embrocation was reapplied; the quinine continued; gruel and brandy, with beef-tea, comprised her nourishment. In the evening it was necessary to relieve the bladder, that was distended with urine; and pills, composed of four grains of Pil. Sap. c. Opio, with eight of Colocynth, were administered.

18th.—Passed an excellent night; pulse 90; no increase of tumefaction about the limb, but complaints of the calf of the opposite leg, which is excessively tender on pressure. I continued my constitutional remedies, and applied the embrocation to both limbs. In the evening I found the bowels had been very irritable; eight or nine motions; in fact, the bowels acting every time that nourishment was taken. It was

* Dr. Deuman, in his chapter on the swelled leg, in his *Treatise on Midwifery*, recommends an embrocation composed of camphor, one drachm, olive oil, one ounce.

necessary to use the catheter. The following draught was ordered. At this time she could move the limbs with perfect freedom; they were still sensible to pressure, and the left leg still oedematous about the ankle. The catheter again used.

R Confect. Cardiac. ʒj.
Confect. Opiat. ʒj.
Tr. Card. Comp. ʒj.
Aq. Cinnam. ʒx. M. ft. haust. statim
sumend.

19th.—Slept the greater part of the night; complains very little of pain; has perfect command of the muscles of the limbs; pressure still gives uneasiness, and the left ankle is still oedematous. The catheter again employed night and morning.

R Liq. Potass. ʒj.
Conf. Cardiac ʒiv.
Sp. Ether Nit. ʒij.
Decoct. Cinchon. ʒvss. M. ft. Mist.
capt. ʒtam part. ʒtis horis.
Pil Ssp. c. Opio, gr. v. h.s.s.

She has continued daily to improve. On the 25th she was removed to the workhouse in a chair; and on the 27th, dissatisfied with her situation, she walked to her residence (distant about a quarter of a mile) without much difficulty, nor has the exertion injured her in the least.—I am, sir,

Your obedient servant,
HENRY GEORGE.

22, Lower Phillimore-Place,
Kensington.

CHOLERA.

To the Editor of the London Medical Gazette.

Minster-Yard, August 27th, 1831.

SIR,

As it seems to be the present fashion to report cases of cholera, I shall feel obliged by your inserting the subjoined. In the present excited state of the public mind upon this disease, and when there is so much desire to run after new remedies, I think it only fair to our *old friends*, that they should not be entirely neglected.

Your obedient servant,
H. S. BELCOMBE, M.D.

August 19th.—A young gentleman, who had fatigued himself by much

travelling during the hot weather, and had perhaps been a little careless in his diet, though I could not get him to acknowledge it, was seized, at five this morning, with spasms at the stomach, followed by copious vomiting and purging of bilious serid fluid. I saw him at nine, when he had taken two grains of opium and some camphor and ether. At that time the vomiting and purging were excessive; there were excruciating spasms of the whole frame, and the pulse imperceptible. Every thing was rejected from the stomach except the opium pills, which were therefore given in doses of two grains every hour. At eleven the vomiting was a little allayed, and the pulse had risen. The warm bath was now ordered, and seemed to have considerable effect in mitigating the spasms. At two there was further improvement; the pills were then given every two hours, and the immersion repeated. In the evening he felt much better, and passed a stool of some consistence.

20th.—A good night, and the only unpleasant feeling is that of excessive soreness. Towards evening a slight purging came on, which was quickly relieved by calomel and rhubarb.

ANALYSES & NOTICES OF BOOKS.

"L'Auteur se tue à allonger ce que le lecteur se tue à abréger."—D'ALEMBERT.

A Treatise on the Means of Preserving Health, and particularly the Prevention of Organic Diseases. By A. T. W. PHILIP, M.D. F.R.S. L. and E. Part II.

(Concluded from page 692.)

THE first part of this Treatise, comprising the nature and symptoms of those derangements which precede change of structure, was reviewed in our last number. We are now to lay before our readers an account of the second and last part, which treats of the means of correcting the states which precede organic disease, and counter-acting their effects.

It appears from what is said in the first part, that organic disease is preceded by permanent disorder of function, and permanent disorder of function by that which is occasional; the

subject of the present part of the treatise, therefore, divides itself into three heads—the means of preventing occasional being changed into permanent disorder of function, those of preventing permanent disorder of function producing change of structure, and when change of structure has taken place, the means of correcting it or retarding its progress. We have also seen that when the quantity of circulating fluids is too great, in proportion to the powers of the system, and the properties of the blood, (as necessarily happens as well from the causes which produce this state as from its continuance) vitiated, a general tendency to derangement of function is the consequence, and therefore a state of plethora may be regarded as a predisposing cause of chronic functional derangement in particular organs. Acute disease is a still more fruitful source of such derangement. The author, therefore, before entering on the treatment of the functional derangement of particular organs, makes some observations on the means of correcting a plethoric state of the habit, and on the principles of treatment in acute diseases which tend to prevent their terminating in chronic local derangements. As our space is limited, we shall pass over these preliminary dissertations, and enter immediately on what he says of the affections of individual organs. In the third chapter of this part of the Treatise, he considers the treatment of the functional derangement of the brain which precedes change of structure. Here the author is on ground which may be considered as altogether new; for, referring for the treatment of the acute diseases of the brain to what has been said of the principles of treatment in acute diseases in general, he confines himself to a consideration of those chronic cases which have been confounded with what are called nervous complaints, and for which, consequently, no appropriate plan of treatment has hitherto been proposed. It has been known to physicians that nervous affections sometimes terminate in organic diseases, but we are not aware that such cases have been distinguished from the more common forms of these affections, and still less that any appropriate plan of treatment has been proposed for them.

In the first part of this chapter the

author points out, that as the functions of the brain are, with the exception of the circulation, those of the whole system, its functions may be deranged without any marked local symptoms: and although the derangement is slight in each particular part of the body, in the brain, which feels the derangement of every part, we can easily understand why the effect should be, as, in fact, we often find it is, attended with the most serious effects. In our review of the first part of the Treatise we have given, as fully as our limits admitted of, the author's diagnosis of such cases—the means by which they may be distinguished from cases of common nervous affections. We are now to consider the plan of treatment which, he informs us, he has frequently found successful in them, after they had defied all the usual means. The treatment of common nervous affections, indeed, either makes no impression on them, or at most gives only partial and momentary relief. "From the case before us," the author observes, "having been confounded with what are called nervous complaints, no appropriate treatment has been attempted in it; and thus it is that it so frequently ends in a fatal disease. I could adduce many cases of this kind, in which the means I am about to point out have succeeded in restoring permanent health, when all others employed for years had failed; and when there was every reason to believe that organic disease of the brain must otherwise have ensued."

In laying down plans of treatment, the first object is to remove the occasional causes and prevent their re-application. It appears, from what has been said of the case before us, that all derangement of function, whether of mind or body, may be considered as a cause as well as a symptom of the disease, for all other derangements tend to derange the brain. The indication, therefore, is to restore the healthy state of all the functions. The various means employed in common nervous complaints are proper here, but they are not equally effectual, for the disease, we have seen, instead of being variable and easily influenced, is, compared with common nervous affections, uniform and obstinate; and we should, therefore, have little hope of frequent success if we were not possessed of means better suited to its nature.

If the morbid state of mind is relieved—that is, if one, and that a very important set of the functions of the brain are rendered more natural, a certain step is gained; for we have no means of counteracting the tendency to organic disease but those of restoring the due functions of the part;—but the mental are neither the most constant nor influential functions of the brain, in a medical point of view. The various digestive and assimilating processes are those which chiefly demand attention where organic disease of this organ is threatened. These are its important, because its most constant, functions. They are those also on which its own structure, as well as that of every other part, depends.

It is in the capillary vessels and extremities of the nerves that all the great changes of our frame take place; and it is only by influencing these changes that we can hope to counteract a tendency to organic disease. "In attempting to relieve the disease before us by medicines," the author observes, "we are not to look for such as powerfully affect any particular part, but gently affect the whole. As the animal body cannot exist under an affection at once both general and powerful, it is not with a violent but extended deviation from health that we have to contend, and which, from the sympathy of the various parts, is obstinate in proportion as it is extended.

We possess two medicines, in large doses, capable of the most powerful effects on individual parts, when given with a view to affect them; and, in small doses, of the most gentle and universal operation when given with a view to affect the whole—mercury and antimony. By these medicines properly administered, we can, without any sensible effect, excite all the secreting surfaces, and often in the case before us, if it is not rendered obstinate either by the great length of time it has continued, or from its depending on a local cause over which we have no power, gradually restore the healthy state of the system, and consequently that of the functions of the brain, when all other means which our art affords have failed. I say this with confidence, because I have repeatedly seen them successful under such circumstances."

author's experience,
attended
to
case we

are considering, and other medicines occasionally administered; for, although no other can be substituted for them, there are many which occasionally assist their effects. He particularly insists on the necessity of employing very small and frequently-repeated doses, that, on the one hand, no increase of debility may result from their use, and on the other, the system be kept constantly under their influence. Those, he observes, who have never seen their effects would smile at such doses as he recommends; but this, he maintains, arises from their being unacquainted both with the nature of the disease and the effects of the medicine.

"Let such objectors," says Dr. Philip, "recollect that our view in the case before us, is to restore the functions of the brain in a disease which is formidable, not from the degree in which any of them are deranged, but from their being all deranged, and constantly so. If any one particular set become more deranged than the rest, which we have seen in protracted cases is apt to happen, a more vigorous treatment, adapted to the greater derangement, must be resorted to, as far as the strength can bear it; but vigorous means, where no great degree of derangement exists, is the surest means of inducing it. The disease is mild in its symptoms, but constant and steady in its progress. The plan of treatment which is opposed to it must have the same characters. After the more severe states have commenced, our means must be proportioned to them, however little hope of relief may remain."

The author has found mercurials, on the whole, more effectual in restoring the due action of the organs of assimilation than antimonials. He therefore dwells chiefly on the former, at the same time pointing out the states in which antimonials, either alone or in combination with mercurials, have been found beneficial. Our space does not allow us to follow the author throughout his observations on either of these medicines, but we shall, as far as our limits admit, follow his account of the circumstances which influence the employment of the mercurial.

"In considering the mode of conducting such a course," he observes, "I shall, in the first place, point out those effects of the plan itself which oppose its beneficial operation, and then

the causes arising from the nature of the disease which have the same tendency; for even this plan is not always free from inconvenience, and sometimes such as is not easily removed. On the other hand, the patient frequently experiences so great a degree of relief even from its immediate effects, that in many instances it has been difficult to prevent his employing it both more constantly and more freely than I judged proper.

"It sometimes happens that mercurial medicines, even in the smallest doses, irritate the bowels; and such is the injurious effects of this irritation, that, unless it can be allayed, the alterative, at whatever expense, must be abandoned; for the disease will bear no serious cause of continued irritation, and in the use of opiates we are greatly restricted. It is only in the smallest doses that they are admissible. The henbane is the best in the case before us, but, like the rest, is often not sufficiently powerful in any dose that is not injurious. If neither this nor any other opiate, in small doses, will answer the purpose, we have no resource but still lessening the dose of the alterative and increasing the interval at which it is given; and if this plan will not leave such a dose as is still capable of making some impression on the disease, the medicine must be laid aside; and then, as far as I know, we have little more but antimonials and palliatives to trust to. The various means which relieve the more common nervous symptoms, although they have a certain effect, afford only very imperfect and temporary relief.

"I have mentioned the eighth part of a grain of blue pill, taken three times a-day, as a dose often attended with very sensible good effects. I believe, that, in many constitutions, even smaller and less frequent doses may be of service.

"The largest quantity I ever give, with a view merely to its alterative effect, is half a grain of blue pill three times a-day in chronic, and four times in acute diseases; and this only when the derangement particularly affects the liver. Under certain circumstances, and particularly, as frequently happens, when acute diseases are attended with, and in some degree supported by, a disordered state of the liver, I have found such an addition to the usual means render them both more certainly and quickly efficacious.

"We sometimes, but not always, derive advantage in irritation of the bowels from the alterative, by changing the blue pill for the *Hydragrynum cum creta*. This preparation is, I think, about one-half the strength of the blue pill; but it is by no means so effectual an alterative, whatever be the dose, being more apt to oppress the digestive organs. In the plan I am speaking of the gums are never allowed to become affected: there is no occasion for so considerable an effect of the alterative; and any thing like salivation must always do harm, where all causes of irritation are particularly injurious.

"Many will be surprised, considering the smallness of the dose, to learn that it is necessary to guard against such an effect; but it is more apt to take place than would easily be believed by judging in this way."

The cause of such a plan sometimes producing a greater effect on the gums than larger doses, is, that the latter are more apt to excite the excretories, by which they are thrown off. It is to the general, steady, and gentle impression that the frequently-repeated small doses make, thus throughout the system supporting an excitement similar to the healthy action, that, the author observes, they owe an efficacy that often surprises those who have not been accustomed to see their effects; which being supported for a certain length of time, are confirmed by habit, and at length go on without the aid of medicine. But it is always a necessary precaution to lay aside the medicine gradually; if it be done too suddenly, the inactivity of the surfaces is apt to return.

The chief circumstances in the disease itself, which oppose the beneficial operation of the alterative, are a great degree of debility induced by its continuance, the inflammatory tendency arising from the same cause, and the determination of the symptoms to particular parts. Our limits will not allow us to follow the author in his observations on each of these heads.

The inflammatory tendency of the disease greatly circumscribes the use of tonics, and the author lays down many rules which must be attended to in their exhibition, otherwise they may prove more hurtful than beneficial. The inflammatory tendency is rather to be subdued by antimonial and saline medicines than by evacuates, where the strength is

already much reduced by the disease; and for the treatment when local determinations take place, the reader is referred to what is said in the following chapters.

It is generally of service to combine the alterative with small doses of quieting medicine, except where there is much tendency to pain of the head, or drowsiness. The henbane has been found the best, and, when the nervous irritation is great, the author has found no means of allaying it so effectually as a combination of henbane and antimony. The great objects of the treatment are, to allay irritation, and support, as far as possible, a regular state of the functions. "In short," the author observes, "the principle of the treatment here being to support the action of the extreme vessels and restore the vigour of the nerves, too much, or too little general excitement is injurious. We must assist the constitution to maintain that moderate degree which alone is consistent with health, and recollect we have no other means of restoring the brain but that of regulating the functions of the whole system; for, with the exception of the circulation, all are functions of that organ."

The author has not found local measures so effectual in the affection of the brain we are considering, as they usually are in other local diseases. The shower-bath he has found the most useful; cold, when the temperature either of the head or the system in general is increased, and tepid—the temperature being regulated by the feelings of the patient,—when this is not the case. Blisters and issues in the neighbourhood of the head in general, he found of little use, although the former is occasionally of service if it does not excite much irritation, which is always injurious.

In plethoric habits issues are often of use, but seem nearly as effectual in the case before us when established elsewhere, as near the head.

The state of the brain we have been considering is frequently sympathetic of other diseases, and then the cure depends in a great degree on that of the primary affection. The most favourable of such secondary cases the author has found to be, that depending on long-continued indigestion, which not very unfrequently terminates in organic disease of the brain. Unless change of

structure has actually taken place, these cases are generally effectually relieved by restoring a more healthy state of the digestive organs.

As the great cause of organic disease is the continuance of disordered function, and the great corrector of a tendency to it, maintaining the healthy actions of the part, the author was induced, from the result of many experiments to which we have referred, to try the effects of galvanism in those obstinate cases of nervous debility which threaten permanent disease of the brain, and he has seen it successful where all other means had failed. For its effects, and the circumstances to be attended to in its employment, we must refer to the Treatise.

In chapter fourth the author considers the treatment of the functional derangement of the heart, which occasionally precedes organic disease of this organ. It arises, we have seen, either from sympathy with diseased states of other organs, or from morbid irritability of the heart itself. The former can only be effectually relieved by relieving the original disease. The latter is relieved by nervous medicines, and the various means which tend to strengthen the general habit, on the morbid irritability of which that of the heart generally depends. Into these means the author enters at considerable length.

The subject of the following chapter is one of still greater interest—the treatment of the functional derangement of the lungs, which precedes change of structure in them. Pulmonary consumption is the most important organic derangement of the lungs: for his opinions of the various forms, both idiopathic and symptomatic, of this disease, the author refers to his treatises on symptomatic fevers and indigestion, and here confines himself to the treatment of those insidious beginnings, which may rather be regarded as indicating a tendency to the disease, than forming a part of it.

"I have said," he observes, "that even a tendency to cough, and that not frequent, and more than usual hurry of breathing on exercise, are symptoms requiring serious attention in those highly predisposed to pulmonary consumption. Of this truth it is difficult to convince those who are unacquainted with the disease. The existence of

bilious complaints in any of their various forms, is not a less serious affection in such habits. In them it is not safe to wait till the bilious affection has produced a cough."

When the slight pulmonary symptoms just mentioned appear in an individual of a consumptive family, and at the consumptive age, the first thing to be determined is, whether he labours under disease of any of those organs which chiefly sympathize with the lungs. When it is ascertained that this is not the case, the whole attention must be directed to the lungs, in order to correct this first deviation from their healthy state.

Strong exercise, and all causes of taking cold, should be carefully avoided; the diet should be so regulated as in no degree to oppress the stomach; the patient should be much in the open air, under such exercise as does not in any degree hurry the breathing or cause fatigue, and he should take at regular times such a dose of quieting medicine, (a combination of extract of poppies and digitalis, the author has found the best,) as allays the tendency to cough, care being taken to obviate any constipating effect it may have.

"In short," he observes, "the principle is to bring the patient into the best possible state of health; to allay the irritation which excites the tendency to cough, and to avoid all those circumstances which tend to increase it; and the less the symptoms yield to these measures the more assiduous we should be in their employment. If they do not soon succeed, blistering of the chest is a necessary addition to them. When the tendency to cough is not immediately removed, the blister may for some time be kept open, or a succession of small blisters may be applied to different parts of the chest; and if there be any pain of the chest, or the pulse be in any degree tight, which often happens even at this early period, if the first blister does not succeed, the application of the second should be preceded by that of a few leeches.

The patient must not pause to compare the trouble of the treatment with the mildness of the symptoms. The mildness of the first symptoms is one of their greatest evils. He may be assured that the necessity of the means is proportioned to the trouble required to relieve him, and that the present trouble

will probably save ten times as much afterwards, with this additional difference, that he is now at a distance from danger, he will then be on the brink of it, from which no trouble may be able to preserve him.

I am not an advocate for unnecessarily minute attention to health: many evils attend it. A pampered constitution is like a pampered child, ill able to contend with the unavoidable occurrences of life; for the more we are nursed the more delicate we become, and too much care, as well as too little, may spoil a good constitution; but of two evils we must choose the least, and too little care is a more pernicious folly than too much."

If such means do not check the disease at an early period, there can be no sanguine hopes of better success afterwards, for in pulmonary consumption, originating in the lungs themselves, we have only the same care, and the same means to look to, varied as the symptoms vary, with the exception of those necessary for combating particular symptoms, which, from their nature, are only palliative, and the chance of success is always the less the more the disease is advanced.

Dr. Philip asserts, that in the earliest stage, these means, if employed with care and assiduity, will seldom fail. It is after the disease has gained strength by habit, and the organization of the lungs begins to be more or less affected, that we so often find them vain.

When the disease has not originated in the lungs, especially if it has arisen from a disordered state of the digestive organs, which happens in a large proportion of the consumptive cases of this country, the author says he has seen few instances, even where the symptoms had become a little troublesome, in which they did not yield readily to a proper plan of treatment; for here at such a period, the pulmonary symptoms almost always disappear on bringing the digestive organs into the healthy state, and there are few diseases more under the influence of medicine than the usual affections of these organs.

Our limits do not allow us to follow the author in his observations on the manner in which the presence of the pulmonary disease, in such cases, should modify the treatment of that of the digestive organs, nor in his observations on the nature and treatment of the

bronchial affection, which is so nearly allied to the more common form of pulmonary disease. He closes the chapter on the means of correcting the early stages of phthisis with the following observations. "Such are the means—few, simple, and of easy application, which never strain the constitution, and to which there is no possible objection, but that they require a little care and trouble at a time when it is not easy to convince the patient that either is necessary; by which the lives of thousands might be yearly saved in this country, and for the most part, at a time of life when they are only entering on its busy scenes, and the feelings of their friends are most deeply interested in them."

The sixth chapter treats of the functional derangement of the liver which precedes change of structure. There is no organ to which the observation made respecting the organic affections of the heart and stomach, that they are often preceded by no perceptible functional derangement, applies so little as to the liver. In this country at least its organic diseases are generally preceded by long-continued derangement of function, which makes itself apparent in all the usual symptoms that attend the more obstinate cases of indigestion.

Long-continued derangement of the liver is the parent of many of our most serious diseases, and the nature of those diseases readily explains to us that of the slighter affections of this organ. "We need not be surprised, for example," the author observes, "that the slighter affections of the liver should be attended with occasional headache, cough, and oppressed breathing, when we see that the continuance of its more severe and obstinate derangement is capable of at length producing apoplexy and pulmonary consumption." These consequences also afford the strongest argument for endeavouring to correct the first beginnings of its derangements.

The extensive influence of the liver, and its consequent effect on the progress of many diseases, leads the author in the present chapter to enter more fully into the laws of sympathy, on which the phenomena of disease so much depend, than in most other parts of his treatise. We shall, therefore, although we have already exceeded the space we usually devote to analyses, enter more fully into the contents of this than the preceding chapter, and with this, and

some account of the mode of practice pursued when organic disease has actually taken place, our notice of the work must close.

Here it is still the object of the author to trace and correct the first beginnings of disease. The most temporary fit of disordered stomach, if at all severe, is often attended with a corresponding disorder of the liver, which is generally excited to pour out a greater quantity of bile, which, by its effects on the bowels, carries off the offending cause; and if the patient has not been subject to frequent attacks, with the cause, the consequences disappear. If the attacks are frequently repeated, the functions of the stomach begin to be more permanently affected, and then the biliary secretion never fails to become more or less habitually vitiated and irregular. These symptoms are for some time readily relieved by a better regulation of the diet and state of the bowels, and the attention is seldom arrested till the patient begins to experience some degree of permanent debility, and a greater difficulty than usual in fixing his attention.

He now finds more care necessary, and is generally surprised to learn that he can only be relieved by a good deal of trouble and some sacrifices. "If the evil day," the author observes, "be put off, and still only palliative measures pursued, the next warning is generally of a kind that must be attended to, and then for the most part the patient has some danger as well as trouble to encounter. These results, however, are not certain, or at least are often very distant; for in many cases slight disorder of the digestive organs will continue to recur for years without material increase; but they are sufficiently, and more than sufficiently common, to make it well worth while to attend to the beginnings of the evil;" and an important fact, the author adds, which he wishes particularly to impress on the reader's attention is, that the debility of the parts concerned, and consequently the obstinacy of the derangement, appears often to be proportioned rather to the length of time the symptoms have continued than to their severity; and when the debility has, by the operation of some accidental cause, and the sympathies of the liver affected a part more inclined to organic derangement than the liver itself, it is often found impos-

sible to relieve the original in time to prevent the fatal effects of the secondary disease, this difficulty being not a little increased by the part last affected, although it has not previously suffered in such a degree as to command the attention, having been, in common with all other parts of the system, more or less prepared to suffer, in consequence of the general irritation so long kept up by the original disease. Under such circumstances, the patient often sinks with a rapidity that seems surprising when the whole of the circumstances, and the general laws of our frame, are not taken into account.

When a stricter attention to diet, regular exercise, and the state of the bowels, fail to relieve the stomach, it is necessary to assist these means by stomachic medicines, which, if no degree of permanent disorder of the liver be established, generally succeeds. "If, on the other hand, permanent disorder of the liver has supervened," which the author maintains may always be known by more or less of a distended state of the duodenum, "the means which only influence the liver through the stomach will generally fail without the aid of a mercurial alterative; for although it is not uncommon to employ mercurial medicines indiscriminately in cases of indigestion, we have reason to believe that while the permanent debility is confined to the stomach, they are of little use, and if freely employed, injurious." The author enumerates the symptoms which attend an habitually disordered state of the liver and consequent distention of the duodenum, for which, as well as for the modes of administering the mercurial, we must refer to the work.

In all the more obstinate cases of the disease it is necessary constantly to watch the state of those organs with which the organ chiefly affected sympathises. In affections of the liver of long standing, the state of the brain and lungs must constantly be kept in view, and that of the lower bowels often demands particular attention, both from the sympathies of the different parts of the alimentary canal, and from the constant passage of the vitiated secretions; for although they are little liable to organic disease, and their sympathies are less powerful than those of the stomach, they are sufficiently so to cause the habitual irritation of their highly sensible and extensive surface to prey on the

constitution. The author relates a case in which rapidly fatal pulmonary disease had arisen from a long series of severe and frequent attacks in the bowels, not in themselves of a formidable nature, and that in a person neither by constitution nor age inclined to this disease. "Such cases," he observes, "are full of instruction to the reflecting physician, and give us many lessons in the prevention of organic derangement. Habitual disease is like the dropping of water on the stone—every drop does something, though its effect cannot be perceived." The functions, both of mind and body, are influenced, and it is impossible to trace all the effects of the changes in any one, for the animal system is a whole, and no part can be disturbed without being more or less affected. It is among the most prominent laws of sympathy, that the more internal part sympathizes more with the other parts of the system than that which is more external. In the alimentary canal, as we recede from the stomach in either direction, the sympathy with other parts of the system becomes less: it is less in the fauces than in the œsophagus, less in the great than the small intestines.

But more than this or any other circumstance, the sympathies of our frame are influenced by a tendency to disease; the weakest part is almost always that which suffers most. "In proportion," the author observes, "as the vigour of each part is entire, it is independent of others; in proportion as it is enfeebled, it falls under their influence. If the hardy savage produces morbid distension of the stomach by an excessive meal, he neither complains of headache, nor is harassed by cough; with more time the stomach can do its own work without disturbing its neighbours, and they are too much at ease to be easily disturbed. But when a thousand anxieties and irritations, with which he is unacquainted, have given to every nerve what may almost be called a morbid sensibility, depending on the same law by which the gums, naturally of little feeling, become morbidly sensible from the long irritation of a carious tooth; each part feels the state of every other, and a door is opened to a thousand ailments. The complicated feelings of civilized life, while they sharpen the mind, enfeeble the body. . . . Almost all the unexpected occurrences of disease may be traced to the sympathies

which are constantly operating—which, as I have already had occasion to observe, have obtained too little attention, and which, the more refinement increases, our sensibilities operate with the greater force.” We have no room to enter on the principles of diet laid down by the author, an essential part of the treatment in the case before us, but shall conclude our review of the present chapter with the following quotation respecting the regulation of exercise and sleep. “The importance of regularity is equally remarkable in the regulation of exercise and sleep. The early part of the day is the proper time for all the more powerful exertions of both mind and body. Towards night the various impressions of the day have produced their effects, and the languor which succeeds all kinds of excitement is sensibly felt by the invalid. Repose is then more necessary, and exertion of every kind more apt to be injurious.

“In health there is often some increased excitement of pulse in the evening. In the invalid it frequently amounts to a degree of feverishness, and is only effectually relieved by the most perfect repose, healthy sleep. Those are mistaken who suppose the period of the day allotted to exercise and to sleep immaterial, provided the proper length of time be spent in both. There is a diurnal revolution in the animal, which corresponds to that of the natural world.

“We are active and vigorous in the fresh air and rising dews of the morning, and more or less worn and relaxed in the rapid air and falling dews of the evening. The healthy do not sensibly feel each deviation; but there is a sensible difference even in the appearance of those who habitually keep good or bad hours, although the latter may spend more time both in exercise and sleep.

“The languor of the invalid in the evening is not wholly the consequence of the exertions of the day. The evening air has always been found unfavourable to him; and in some countries it is very sensibly so to the most healthy. The peculiar quality of the morning air is given by the contact of the cold and moist surfaces of the night; of the evening air by that of the dry and heated surfaces of the day. Every one has felt the refreshing effects of a sudden shower after a sultry day. The evening and

morning air is always, more or less, the air before and after the shower.

“The luxurious neither experience the freshness of the morning air, nor the calmness of the evening repose, which nature dictates. Thus, as in all other instances, if we deviate from her laws we only lose on the one hand, as we gain on the other; and I believe if the balance could be fairly struck, it would always be in favour of her votaries. It requires much reflection to see all the consequences of any deviation from them. One effect produces another, and the tone of both mind and body are influenced by many circumstances, which, viewed barely in their immediate effects, appear of little moment.”

On the seventh chapter, on the treatment of the functional derangements of the other abdominal viscera, which precede change of structure, we have not room to enter; and our notice of the last, on the treatment when organic disease is actually established, must consist in two quotations from it; the first giving a summary of the principles on which the author's views of the treatment are founded; and the other a case exemplifying the effects of it, one of the very few related by the author, the frequent relation of cases being regarded as inconsistent with the nature of his treatise.

“As we have seen that the disposition to organic disease is proportioned to the degree in which the vessels of the part are affected—that is, in proportion to the degree in which the irritation, caused by the derangement of its nerves, has deranged the circulation in the part; that this derangement is always of an inflammatory nature; and that all causes of inflammatory action, whether of the part itself, or of the general system, promote the establishment of organic disease; we find, after its establishment, that all such causes tend to confirm it, and promote its progress, and consequently to oppose the operation of the means of cure.

“On the other hand, organic disease of vital organs is for the most part accompanied by a debilitated state of the general habit, which, by weakening the healing powers of the constitution, never fails to increase its obstinacy.

“In order, therefore, to bring the habit into the state most favourable to the removal of organic disease, and con-

sequently for the operation of the remedy, we must, at the same time that we lessen the inflammatory tendency, do all which the circumstances of the case admit of to support the strength. These indications in a great degree oppose each other, and our practice must lean to that side where the symptoms are most urgent.

"Our great resource is a combination of general with local means, to support by the former the general powers of the nervous and sanguiferous systems, and by the latter to lessen as much as we can the determination to the part affected, the consequence of the greater debility of its vessels, by which we relieve both the inflammatory tendency of the part, and that of the general habit; which depends upon it. If the seat of the disease be very tender on pressure, and the pulse much contracted, striking the finger when lightly touched like a wire, we may be assured that the mercurial will be less useful till these symptoms are mitigated, and will hardly fail, if freely administered, to increase them.

"It is therefore necessary that, under these circumstances, it should be given cautiously; for even under these it should be given. It is one of the greatest advantages of the minute and frequently-repeated doses, to which I have been gradually led by the effects of this medicine, that they do not occasion that excitement of the general system which we observe from larger doses; and by tending imperceptibly to restore the function of the debilitated part, and thus remove a principal source of the irritation which attends the disease, and exciting all the secreting surfaces, they often eventually prove the most effectual means of removing the inflammatory tendency. However little ground is gained by each dose, we keep it, and thus the good effects accumulate. When larger and more distant doses are employed, the effect of one is more or less lost before the next is given; and thus often little progress is made, or, perhaps, notwithstanding the temporary relief, the disease on the whole is increasing."

The author, as the best means of laying before the reader his mode of administering mercury in organic disease, concisely relates the particulars of a severe case in which it was employed.

"An officer between thirty and forty

years of age, returned from India in a state of great debility. His countenance was sallow, and at once informed the experienced eye, that he laboured under organic disease. His liver was much enlarged and indurated. He was subject to severe inflammatory attacks, which increased his debility, and frequently brought him into immediate danger; and the whole of his state was such as is supposed rarely to admit of a perfect restoration to health.

"The temporary attacks were relieved by local blood-letting, and such means as allayed the pain, and quickly restored a freer secretion of bile; and, in the intervals, he was desired to take half a grain of blue pill, and a grain of extract of henbane, three times a day, with such medicines as allayed the tendency to fever. The most nutritious diet, of easy digestion, which his state admitted of, was enjoined; and he was desired to be as much as he could in the open air without any degree of fatigue, or the risk of taking cold; and, as his strength improved, to make walking his principal exercise.

"In a short time he experienced a sensible improvement in his health; the severity of the occasional attacks abated, and in the space of some months ceased to return. He could now move about with more ease, although the enlargement of the liver was still considerable; and after being made acquainted with the circumstances necessary to be attended to, he was not prevented from going to the country, and the continent, to which his affairs called him. His recovery advancing, he repeatedly thought himself well enough, according to the directions I had given him, to permit the alterative to be discontinued; but was constantly obliged to return to its use.

"I saw him from time to time, without finding any reason to change his plan of treatment, assuring him that the time would come when the means might be laid aside without a return of the disease, and that it only required the habit of health to be longer maintained by the medicines, in order to render it permanent without their aid; for hardly any enlargement of liver could now be perceived; and, at each interval, the improvement both of his looks and health was apparent. I still advised him from time to time to try how far the alterative could be laid aside, but to

return to it as soon as he perceived the least threatening of his symptoms.

"At the end of more than two years from the time he began to use the alterative, during which he was uniformly recovering his strength and healthy appearance, he found my prediction verified. He no longer required the use of medicine; all enlargement of the liver had disappeared; and he had in all respects regained both the feelings and appearance of health. He returned to the service, but not to India; and, although several years have now elapsed, he has experienced no return of his disease.

"I have related the circumstances of this case at greater length, because they tend to illustrate several positions of the foregoing treatise, as well as the effect of the alterative. It is only where organic disease has actually taken place, that so long and constant an employment of the alterative is necessary."

The great length to which our analysis has extended, leaves us no space for anything in the way of comment; we shall, therefore, content ourselves with observing, that, though we do not agree in all the views of the author, we cannot take our leave of him without expressing the conviction we have received from the perusal of his work, that it is the result of extensive experience and mature reflection, fully maintaining him in the rank he has already acquired among the learned and accomplished physicians of his time*.

An Account of Inventions and Improvements in Surgical Instruments, made by JOHN WEISS, 62, Strand. Illustrated by numerous Engravings. Second edition, much enlarged. 8vo. 1831.

In noticing the work of which we have just transcribed the title page, it cannot be expected of us to go into its details, as such a work can hardly be considered to come within the scope of our labours: but this much we will say—that no individual ever invented

and improved such a variety of surgical instruments as Mr. Weiss. The merits of this ingenious mechanic are well known to the profession; it is only necessary to give him a hint of what is required to be done by the instrument, when his inventive genius is set to work, and he spares neither expense, time, nor trouble, to attain his object. Such a man merits, not only the thanks of the profession and the public, for his peculiar exertions in the cause of suffering humanity, but he deserves something of a more substantial nature, in the shape of patronage and encouragement from the community at large.

Every operating surgeon, at least, will find it convenient to be in possession of Mr. Weiss's book—or rather catalogue, where, by a reference to the plates, he will be able to select the instrument best calculated for his purpose.

MEDICAL GAZETTE.

Saturday, September 3, 1831.

"Licet omnibus, licet etiam mihi, dignitatem *Artis Medicæ* tueri; potestas modo veniendi in publicum alit, dicendi periculum non recuso."—CICERO.

ON THE STATE OF THE BLOOD, AND EFFECT OF SALINE MEDICINES, IN MALIGNANT DISEASES.

We have been informed, on the authority of Dr. Harder, a physician to the Court of St. Petersburg, who accompanied the Grand Duchess Helena to England, that his countryman, Dr. Jachnichen, of Moscow, has demonstrated "that healthy blood contains a notable quantity of free acetic acid, which, as well as the natural portion of its serous fluid, is in a striking proportion lost in the blood of cholera patients; but that these substances are to be regained in nearly their right proportions in the fluids inundating the primæ viæ, in cholera, and voided by the vomitings

* In the former part of our analysis the following typographical errors occurred:—Page 697, l. 38, for "shapes the brain," read "shakes the brain." Page 699, l. 13, for "light pulse," read "tight pulse." Page 699, l. 40, for "origine," read "angina."

and alvine evacuations in that disorder." We think it due to our Russian correspondent to make this announcement, the rather as it is intended to correct what he regards as an inaccuracy on our part, though we are free to confess, that we are by no means convinced even now of the error lying with us. We cannot understand how acetic acid can remain *free* in a solution which contains soda; neither, as the addition of acids blackens the blood, does it seem probable that the removal of such agents should also have the effect of rendering that fluid more dark. It is not our intention, however, to enter farther upon a question, for the satisfactory discussion of which we lack materials; but we shall take the opportunity it affords of bringing before our readers the statements of Dr. Stevens, whose views with regard to the state of the blood in malignant diseases appear to us to merit more attention than they have received, and which are, to a certain extent, though indirectly, strengthened by some of the phenomena which the cholera has presented in the north of Europe.

In our number before last, we published a letter from Dr. Barry, in which he says, "Two physicians (Germans), Ysenbeck and Brailow, stated publicly and firmly yesterday, in my presence at the Medical Council, that during the preceding eleven days they had treated, at the Custom-house Hospital, thirty cholera patients, *of whom they had not lost one*. They give two table spoonfuls of common table salt, in six ounces of hot water, at once, and one table spoonful of a similar mixture cold, every hour afterwards. They always begin by bleeding." A similar treatment has also been tried at Warsaw, by Mr. Searle; and most of our readers will recollect, that this is neither more nor less than the practice which has been so warmly recommended by

Dr. Stevens, not only in yellow fever, but also (reasoning from analogy) in the cure of other malignant diseases.

In a paper which was read at the Royal College of Physicians on the 3d of May last year, and of which we published an abstract, which has since been extensively circulated in the periodicals of Europe and America, Dr. Stevens asserts that there is sometimes met with in the West Indies, a malignant form of the yellow fever, in which, from the beginning to the end, it is evident from the symptoms that there is little or no affection of the solids, while often after death even the most able anatomist cannot detect any trace of disease, either in the brain, the stomach, the intestines, or any of those organs whose derangements are generally supposed to be the cause of fever. In those fatal cases there is no excitement in the commencement sufficient to produce disorganization; and we can only ascertain the real cause of death when we open the heart and examine the state of the once vital fluid. We there find, in place of blood, a liquid, nearly as thin as water, almost as black as ink, and evidently so changed as to be totally incapable of stimulating the heart; in both cavities of which the fluid is equally black, and in fact in the whole vascular system all distinction between arterial and venous blood is entirely lost.

Now Dr. Stevens holds the saline materials of the blood to be the cause of its red colour, and certain other properties essential to life. He does not, indeed, identify the saline with the colouring matter; on the contrary, he considers the latter as a mere animal dye, which is naturally black, but which possesses the peculiar property of striking a red colour with a solution of the neutral salts. He also considers the saline ingredients in the blood as the cause of its fluidity, on the assumed ground that the fibrin and the albumen

are naturally solid, and that the tendency to this condition is counteracted by the saline impregnation.

"Nature (says Dr. Stevens) does nothing in vain; and all the analyses of the blood have proved that, in health, it invariably contains a given proportion of saline matter. This is not accidental; for it is as essential, and exists as invariably in healthy blood, as either the fibrin, the albumen, or the colouring matter. Arterial must evidently contain a larger proportion, or at least a stronger saline matter, than venous blood; for all the solids, and most of the secretions, derive their saline matter from arterial blood. But the serum of even the venous blood which is left contains a proportion of thirteen ounces to the thousand of these salts, independently of what is lost by evaporation, &c. We well know how active these salts are as chemical agents, and these agents are so constantly found in the blood, and in healthy blood their proportion is so exact, that we are forced to believe that they are placed there for some important use. But the importance of this saline impregnation has been almost entirely overlooked, from the great attention that has been paid; both by physicians and philosophers, to the much less important colouring matter."

Of all the ingredients, Dr. Stevens appears to consider the saline matter of the blood as by far the most essential to its healthy state. Any of the other ingredients may be diminished, and still the vital fluid will perform its functions; but when the saline impregnation is lost, or greatly lessened, as he states it to be, in malignant diseases, the blood becomes black, goes fast to decay—a change which is soon followed by death. "On examining the blood soon after death, of those who had died of the yellow fever, the colour in the whole mass of blood, both in the arteries and veins, was completely changed from its

natural scarlet, or modena red, to a dark black. I have frequently filled one glass with the black fluid taken from the heart, and another with the black vomit taken from the stomach. They were both so unlike the blood of health, and resembled each other so completely, that it was almost impossible to distinguish the one from the other."

The oxygen of the air had no effect whatever in reddening this dark fluid; but on adding a small quantity of any of the neutral salts, even to this black blood, the red colour was immediately restored; and Dr. Stevens believes that certain saline agents have a specific effect, when administered during life, in remedying that diseased state of the blood which is uniformly met with in this, and probably in all other malignant diseases.

It appears that Dr. Stevens first commenced this practice with a solution containing two parts of muriate of soda and one of nitrate of potass. An objection to this mixture was, that when given in large doses it was apt to disagree with the stomach; and finding that other saline agents possessed, in an equal degree, the same property of remedying the diseased state of the blood, these were occasionally employed;—the carbonate of soda, for example, was preferred particularly when there were any signs of acidity in the stomach, and the tartarised soda was generally given when a purgative was required. Under this practice the result is stated to have been incomparably more successful than it was under the old treatment.

The resemblance between cholera and certain malignant forms of fever, both as to their phenomena and, if some of the latest accounts be correct, likewise as to the treatment which proves most successful, is very striking. Even in those cases in which there is no excitement, and of course no increased action to be re-

duced, the removal of a small quantity of blood is equally beneficial in both, by relieving the overcharged heart and enabling it to circulate with more ease than which is left. But in the malignant fevers of the West Indies, much more commonly than in cholera, there is great increased action, and the lancet is then used freely. As early as possible after the first bleeding, the patients are freely evacuated by means of some active purgative. As soon as the excitement is sufficiently reduced by these means, which it generally is in less than twenty-four hours, the use of the saline mixture is commenced. This method of treatment, which Dr. Stevens has the merit of having first proposed, is gaining ground in the West Indies; and it is consistent with our knowledge that Mr. Greatrix adopted it in the Military Hospital of Trinidad, where a mixture containing the muriate of soda and nitre was given in pretty large doses immediately after the patients had been bled, and had the bowels evacuated by enemata. The year 1828 was sickly in many of the West India islands: from the beginning of that year up to the month of August, we believe that, under the old treatment, the Royals alone had lost forty-two men from fever. In the month of August of that year Dr. Stevens visited that island, where, at the request of the Governor, he communicated with Mr. Greatrix on the subject of the West India fevers. This gentleman subsequently adopted the saline treatment, and the result under this new practice is thus described by himself:—"The above system has been applied to 340 cases, or thereabouts, including both the remittent and yellow fevers admitted to the hospital, after the fevers had existed from six to seventy-two hours antecedently to an application to the hospital, with such success that during the last seven months not a

case has died. Three men have died in that time, having the remittent fever, but they had at the same time abscesses in the lungs and purulent expectoration."

It appears certain that the mortality from fever has been lessened in those islands of the West Indies in which this treatment has been fairly adopted; and it seems to us, that analogical reasoning, as well as the statements of Dr. Barry and Mr. Searle, would fully justify a trial of the same method in cholera. This last is, indeed, so virulent a pestilence, and so many perish in the first stage of collapse, that no treatment which human ingenuity can devise will probably do more than rob it of a certain portion of its mortality; but should even this limited benefit be obtained by saline medicines, exhibited on the principle of remedying the morbid condition of the blood connected with its blackness, it will be chiefly owing to the statements of Dr. Stevens on an analogous subject, for though his paper, as we have said, has never been published, yet our account of it has made his doctrines extensively known, and will thus lead to their confirmation if true, or their rejection if false.

Cause of the Red Colour of the Blood.

As connected with the above subject, we may lay before our readers the following communication, extracted from an American journal. It is a letter from Dr. Sewall, the Professor of Anatomy and Physiology in the University of Washington, which we find published in the Boston Journal for December last.

The cause of the red colour of the blood has long been a subject of keen discussion among physiologists, and nothing has hitherto appeared upon the subject at all satisfactory, and against which powerful objections could not be brought.

Dr. Stevens, an eminent physician of

St. Thomas, has instituted an experimental inquiry into this subject, which has led to some novel and interesting results. From his experiments it appears,

1st. That the blood owes its red colour entirely to the presence of the saline matter which is invariably found to exist in it, while in a healthy state.

2dly. That the dark colour of venous blood arises from the presence of carbonic acid, which, like every other acid, turns the blood black.

3dly. That the oxygen of the atmosphere can only affect the colour of the blood inasmuch as it possesses a powerful affinity for carbonic acid, which it takes from the blood by attracting it through the delicate membrane that lines the bronchial vessels and air-cells of the lungs.

4thly. That the removal of the carbonic acid from the blood by the action of oxygen, does not produce a change in its colour, unless there be saline matter actually present, to impart to it the arterial tint the moment the carbonic acid is removed.

5thly. That acids, alkalies, electricity, and every thing which destroys the neutrality of saline matter, gives to the blood a dark colour.

Whatever practical inferences or change in the treatment of diseases these experiments may lead us to, the idea that the red colour of the blood is owing to the saline matter which it contains, is entirely new; and no one can deny to Dr. Stevens the merit of having been the first discoverer of this interesting fact. He is still prosecuting his inquiries, and his researches upon this and other subjects connected with it promise much to the profession. They will soon be laid before the public in detail. I have had the pleasure of witnessing a number of Dr. Stevens's experiments, as performed by his own hand, upon the blood; and so far as I have had an opportunity to examine them, they have been performed with great care and accuracy, and were entirely satisfactory.

We are aware that Dr. Stevens himself is about to publish on this subject; yet, as there are some parts of Dr. Sewall's letter which we do not clearly comprehend, and as every thing relating to the blood and the treatment of

malignant diseases possesses great interest at this moment, we have applied to that gentleman for information on certain points: should we succeed in obtaining this, we shall lay it before our readers in another number.

POPULAR WRITERS ON CHOLERA.

We have a suspicion that some readers think that we, as well as the press in general, talk too much about cholera. They cannot look into this Journal any week, nor into almost any newspaper of the day, without the *terrible word*, and a whole body of facts about it, saluting their timid glances. This is mere childishness. All Europe, thanks to the press, is awake to the impending calamity; nor is there any intelligent government in the same quarter of the globe, that has not taken its measures of precaution for warding it off. The population of every European country is now more or less familiarized with the dread name and description of cholera; and should the epidemic ever come amongst us, it will not come like a stranger, or steal upon us like a marauder; we shall be as well prepared for it as human ability can enable us to be, and, in the alarming announcement of its presence, it will be robbed, we trust, of half its terrors. But in attributing this beneficial influence to the press generally, we are aware that much deduction must be made, on account of the unworthy uses to which the subject of cholera has been turned by many, especially of the political journalists, who have magnified trivial instances of its occurrence, and often created new ones.

We have seen but too many examples of late in which cases of the common cholera of this country have been caught up and put forth for the purposes of alarm: perhaps we should modify the

expression with respect to some of the parties, and substitute pure ignorance for their motive; but we could lay our hand upon one newspaper in particular which, within a very short time since, most disgracefully published an hospital report of a case of English cholera with all its—to unprofessional eyes, disgusting—detail in its columns, and advertised the number on the strength of this sporadic instance, as if it was the commencement of an epidemic seizure. The newspaper, fortunately, was one of no character or circulation, and the “doer-up” of it took nothing by his filthy as well as dishonest proceeding. It is in this way, no doubt, that many readers form unfavourable impressions of the labours and services of the public journalists, and venture to express their opinion that these functionaries would better discharge their duty by keeping silence on a subject, the horrible details of which are of purely professional interest. Our opinion is directly at variance with this. Convinced as we are that in this, as in most other things, *semipublicity* is dangerous, and since *semipublicity*, at least, is inevitable where cases, neither few in number nor despicable in their severity, are so frequently occurring, we hold that there is no better way of re-assuring the public, and begetting in them that confidence which is so essential to security, than by honestly apprising them of the real state of things: that not a year passes in which we have not many cases of cholera amongst us, and some of them fatal too, but that the proper method of treatment is no mystery, nor unknown even to the humblest of our practitioners, and is almost invariably successful when had recourse to at an early stage of the invasion.

It is the political journals of more than ordinary circulation which may do mischief by entering too much into unguarded particulars, and giving them, often involuntarily on the part of the

writers, a colouring which does not properly belong to them; their duty it should simply be, not to report cases of cholera, nor to suffer themselves to become the tools of advertising quacks, but to insist upon the essential harmlessness of the complaint as it is endemic here, and to proscribe certain common but dangerous practices—for example, intemperance and sudden chills, which at this season have a positive power of engendering the malady.

A recent case is mentioned by a French medical writer, which, if it happened here, and came within the cognizance of certain newspaper scribes, would no doubt be converted into serious matter of alarm, and be hailed as a god-send to the columns in which it should first appear. It is the case of a gentleman, who one day, after living in his usual manner, and taking but a single glass of Madeira at dinner, was seized in the evening with sickness, which about midnight was developed in gripes, vomitings, purgations, and cramps. Down stairs he went to seek relief; knocked at his sister's door; and threw every body into alarm. His brother-in-law, who was fast asleep, was roused; and having got up in his shirt, made a couch in an adjoining room for the unhappy patient. Here, however, the patient was attacked with fresh vomitings and purgations. Presently after, the brother-in-law, who had gone back to bed, was seized with griping, vomiting, diarrhoea, &c.; and the maid-servant exhibited symptoms of the very same description. They were all well next day. But what was this? Was it contagion—a clear case of transmission of cholera by contact? or can it be accounted for in any other way? We entirely agree with the writer, who naturally attributes the circumstances to the effect of chill (*refroidissement*), and to the agitation and alarm of people being roused out of their sleep, and bustling about in the middle of the night half-

naked. Perhaps, if exciting causes were attended to in this simple way in many of the pretended cases of cholera recently reported, a better insight would, ere this, have been attained of the nature and habitudes of the disorder, as it appears among us.

But the non-professional journals should abstain altogether from publishing cases of this sort, which, a thousand to one, are grossly exaggerated, or wholly inexplicable by them. We can better appreciate their value; it is our business: we can pass a judgment on them with confidence—can publish our opinion; and, we flatter ourselves, so far from alarming, we can inspire the public with reasonable courage by our communications.

Having said so much by way of protest as to what the political journals should not publish about cholera, we shall add a specimen of the sort of information which they should lose no opportunity of circulating—the precautionary steps and measures adopted by the leading powers of Europe for the security of the people. It is a subject to which the attention of the wisest members of our profession, in all countries, is at present directed; and if safety can be hoped for from human means, from these men assuredly must it come; nor can both gratification and public confidence fail to be derived from all the publicity which their measures may receive.

We find in some of the French papers which have just been received, a brief comparative statement of the arrangements made by the respective governments of Germany, France, and England, to arrest the apprehended progress of cholera into their dominions, and the directions which are to be followed in case it should unhappily make its appearance within of the particulars we make room with—

FRANCE.—A report of the progress of cholera from the east to the west of Europe having been presented to his Majesty by M. d'Argout, the Minister of Commerce, a royal ordinance has in consequence been issued, which establishes branch committees of health in the chief towns of twenty departments; and there are ordered to be other branch committees subordinate to these, in the various subprefectures of the said departments. It is strictly forbidden to import into France, either by sea or land, any articles of cloth or clothing, bed-clothes, hospital or camp furniture, excepting such as belong immediately to individuals as their private goods and garments, in which case they must follow the condition of the owners, either for free pratique or for quarantine purification. Hemp and flax from the north, to be treated with ventilation and the usual precautionary measures, during the number of days appointed by the local committee of health. The persons engaged in the carriage of those articles to be submitted to the same space of quarantine. In Paris a commission of health is established in each of the quarters; the commission consisting of the commissaries of police, two physicians, and an apothecary, who are to correspond with the board of health of the respective division of the metropolis, or with the prefect of police.

GERMANY.—A proclamation of the King of Prussia, dated the 6th of July, organizes at Berlin a supreme council of health, and in each of the other towns a commission acting in accordance with it. Neither travellers, nor their effects, are to enter Prussia by any but by the permitted routes, and after a quarantine of twenty days. Nobody is permitted to travel in the neighbourhood of the threatened frontiers without a bill of health, which is to be inspected every evening. All postmasters and coach-owners are commanded not to take up any travellers who are unprovided with such bill; nor shall these individuals be received into any inn, hotel, or private house. Bales of woollen cloth and haberdashery are strictly forbidden. Rigorous quarantine is imposed on every ship from Russia, no matter what of health they may have. Every within the kingdom ascertained to be forthwith surrounded

by a cordon three miles from the town. In the duchy of Posen no meeting or assembly whatever of the inhabitants is permitted—even within the churches. The government to communicate to the public every thing they know about cholera, without distinguishing the facts which may alarm from those which may assure.

Hanover and Saxony have adopted similar measures; and in Hamburg special hospitals for the complaint have been established.

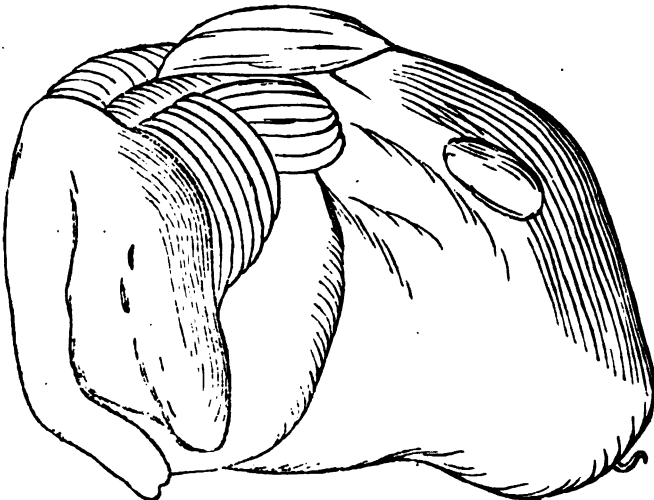
Austria has put in practice methods of equal rigour; and a strict cordon is formed between that country and Hungary.

ENGLAND—Under this head the French journalist has put down many facts with which our readers are acquainted, besides stating others with which, perhaps, they are not so familiar. There are seven quarantine stations for England, four for Scotland, and two for Ireland. Twenty vessels of the line are employed as floating hospitals for the reception of equipages and merchandize infected, or supposed to be so. A commission of health is established in every city, town, and village, which is to hold direct communication with the general Board of Health. The towns are subdivided into quarters; and there are places allotted in them for persons who shall have been attacked with cholera, for those who may have been in contact with them, and for those who are convalescent. Nor can the latter be restored to their friends within the period of fifteen days after their recovery.

THE INHABITANT OF THE PEARLY NAUTILUS,

(*Nautilus Pompilius*.)

THE inhabitant of this shell, which has so long been a desideratum in natural science, was discovered by Mr. George Bennett on the 24th of August, 1829, in a bay of the Island of Erromanga, one of the New Hebrides group. The animal had only before been noticed by Rumphius, and some further remarks had been made upon it by Sonnini, in his edition of Buffon, but great doubt has been expressed if any reliance could be placed on these accounts. Mr. Bennett's sketch of the animal, taken immediately after it was removed from the shell, fully confirms the general accuracy of Rumphius's figure. We shall give no further count of it at present, as a detailed examination of the animal is in progress, with the intention of attempting to point out the true situation of this genus in the animal kingdom, which is a fact of some interest, as it will at the same time shew the natural situation of that large group of fossil shells called *ammonites baculites*, &c. &c. We have been permitted to give the following representation of the animal when just removed from the shell.



FACULTÉ DE MÉDECINE, PARIS.

ON the 9th ult. M. Bouillaud was appointed to the chair of *Clinique Interne*, with the suffrages and approbation apparently of all parties. In fact, this seems to have been the first appointment, since the restoration of the Concours, that has given any satisfaction. The charge of gross partiality has been laid to the judges in every instance but this,—a clear proof that this mode of election is not so infallible as some of our *confrères* on this side the channel would have us suppose. The principal competitors of M. Bouillaud were MM. Louis and Rostan.

DEATH FROM INANITION.

Some Account of Granet, the French Prisoner, who lately starved himself to Death.

THE following brief report was transmitted, a few days ago, to the French Academy of Medicine, by the Minister of the Interior. It was drawn up, we understand, by M. Dufour, a physician of Toulouse, who attended the prisoner during the whole period of his sufferings and death:—

Guillaume Granet was twenty-four years of age. It was on the 20th of April last that he formed the fatal resolution of starving himself, with intent to avoid the punishment due to his crimes. On the 21st he was found lying on the ground, dressed, head uncovered, his irons bolted on both hands and feet; he would only answer by signs, and would take neither solid nor liquid food. It was attempted to make him swallow by force; but this only threw him into an outrageous passion. When visited in the evening, however, he was more calm, and thought fit to use his tongue.

22d and 23d. Much the same way; urine fetid; burning heat in the throat.

24th. Face flushed; breath exceedingly foul; haggard looks; pulse at the wrist scarcely perceptible.

25th. He passed some urine.

26th and 27th. Nothing remarkable.

28th. He came down to the court-yard, and drank up some water from the well: his handcuffs taken off.

29th. Shiverings.

30th. Drank a glass of water.

May 1st. Spoke, but not to be understood.

2d. Rolled himself in the kennel of the court-yard.

3d. Drinks some water; will take no broth or soup.

4th. Passes some urine.—On the 5th, he ran out of his dungeon, with nothing on him but his shirt: upon coming back, he lay down and ate a morsel of bread. He was taken to the Infirmary, and about midnight ate some soup with a little bread and wine.

6th. Took nothing.

7th. Drank of his own urine, and about a quarter of a spoonful of water. In the afternoon he complained that there was poison in the food that was offered him.

On the 9th, 12th, 15th, and 17th, he drank some water.

18th. Drank but half a spoonful—attacked with violent fits of coughing, and oppression of the chest.

21st. Ran out, and wanted to drink of the kennel, but was prevented; same night he drank water.

22d. Wanted to bite and scratch; complained of sharp pains in his bowels; passed water.

23d. Took some broth.

On the 24th he was found lying on his belly; his pulse feeble and slow; his fists shut; drank some water from the kennel, which had been cleansed.

25th.—Suffered much, and abused every body; pulse 53; drank of the kennel.

26th.—Tore his shirt to pieces; same night passed some urine.

On the 27th and 28th he drank eight glasses of water; his fæces were found carbonized; said he had still a fortnight to live.

In this way, at one time easy and again in agony, now refusing to drink and now taking a little water, he continued to live on till the 17th of June (the 58th day) when about five in the morning he died, after struggling for four hours in convulsions.

During some of his last days he complained of cold; his legs too were shrunk up, and marked with blackish spots—dry gangrene, according to M. Dufour.

These are all the facts of this wretched man's suffering which have been preserved. The particulars of his *post-mortem* have not yet reached the Académie, but are promised to be sent ere long by the Minister.

EXTRACTS FROM JOURNALS,

*Foreign and Domestic.*CASES OF TIC DOULOUREUX, IN WHICH
THE CYANURET OF POTASSIUM HAS
BEEN EMPLOYED WITH SUCCESS.

By M. le Docteur Lombard, of Geneva.

THE cyanuret is employed in friction: it is either dissolved in distilled water, or made into an ointment with pure hog's-lard, and used in either form, according to circumstances. From one to four grains in an ounce of water, is the quantity usually employed for the aqueous solution: from two to four grains in an ounce of lard is the composition of the ointment. It may be mentioned that the aqueous solution is in general of the two forms the more prompt and instantaneous in its effects.

CASE I.—*Facial Neuralgia instantly cured by the Hydrocyanate of Potash in Friction.*

A lady, of robust habit, 49 years of age, was a martyr to the most agonizing occasional attacks of pain in the space between the temporal region and the ciliary arch and maxilla. She used to scream violently in these torturing accessions, and sometimes lost all appearance of sensibility to such a degree that she has been supposed to be struck with apoplexy. Pulse 84; face rather flushed; no functional derangement. She was ordered to be rubbed with the aqueous solution, containing sixteen grains of cyanuret of potassium in four ounces of distilled water: it was rubbed on the forehead and cheek with a ball of cotton. The pain gave way almost instantaneously at the very first application; and seemed, as the patient said, to be rubbed away with the hand. A complete cure was effected by persevering a little while in the use of the remedy.

CASE II.—*Periodic Neuralgia removed by the Ointment of the Cyanuret.*

The cure in this instance was less prompt, but not less certain. A lady, 38 years of age, experienced the severest pains in the temporal region and upper jaw of the left side: they came on regularly every morning at four o'clock; went on increasing in severity until

about ten, and did not cease till four in the afternoon. In that interval she laboured under anorexia, fever, headache, &c. and was almost driven distracted. She was bled to twelve ounces to relieve congestion, and then the ointment was applied to the cheek and temple. Two grains to the half ounce of lard were at first employed, but the improvement was more rapid under the application of ten grains to two ounces. Lotions of the cyanuret were eventually used, and the cure was complete.

CASE III.—*Facial Neuralgia almost immediately cured.*

A lady, 20 years of age, suffered for several days, at the same hour, the most torturing pains in the orbital and supra-maxillary regions. Her face was much flushed, particularly on the affected side. Ten grains of the cyanuret were dissolved in four ounces of distilled water, and rubbed on with cotton. The application was quite successful.

CASE IV.—*Chronic Occasional Neuralgia similarly treated.*

A woman, of 80, who had long suffered from irregular attacks of this complaint, was cured by lotions and frictions, compounded pretty strongly, and continued for some time.

The cyanuret of potassium is contra-indicated where the nervous affection is complicated with inflammatory action, discharge, &c. It is a useful remedy in non-inflammatory rheumatism.

In sciatic neuralgia it has not been successful—nay, it has been necessarily discontinued, on account of some unpleasant accidents which it occasioned.

In white swelling, attended with acute pain, poultices moistened with the solution had the effect of producing much comfort, though the continuance of their application had no promise of amendment in it.

It is on the whole inferred that the calming properties of this remedy are superior to those of any other known, and that it should always have a preference where inflammation does not exist. Lotions, with hydrocyanic acid, are by no means to be compared with it, for the acid is decomposed with facility, and scarcely to be used without danger.

The first application of the cyanuret in the above way is claimed by M. Butigny and his brethren of Geneva, but it is disputed with them by Messrs.

732 CASES OF SLOUGHING AND REGENERATION OF THE SCROTUM.

Robiquet, Villamé, and Bally of Paris.
—*Gazette des Hôpitaux*.

VISION OF THE MOLE.

Does the mole see? Aristotle and all the Greek philosophers thought it blind. Galen, on the other hand, maintained that the mole saw. He affirmed that it has all the known means of sight. The question has been resumed in modern times. Naturalists have found the eye of the animal. It is very small—not larger than a millet-seed; its colour is an ebony black; it is hard to the touch; and can scarcely be depressed by squeezing it between the fingers. Besides the eye-lid which covers it, it is protected by long hairs, which crossing each other, form a thick and strong handage. Such an eye should be destined to see; but anatomists do not find the optic nerve. What use could an eye be of, deprived of a nerve, which in other animals transmits the visual sensations to the brain? This consideration naturally tends to the opinion of Aristotle, and the Greeks, and to induce the belief that the mole does not see, and that its eye is only a rudimentary point, without use. Direct experiments, however, made at the request of G. St. Hilaire, show most incontestably that the mole makes use of its eyes, since it turns to avoid obstacles placed in its way. But if it sees, how is it accomplished without an optic nerve? M. Serres was of opinion that the place of this nerve was supplied by a superior branch of the fifth pair, analogous to the ophthalmic branch of Willis. According to Geoffroy St. Hilaire, this change of function in a nerve, which it is not naturally destined to perform, does not exist. The mole sees by aid of a particular nerve, which being unable, on account of the too great extension of the olfactory apparatus, to follow the direction which it takes in animals, towards the *tubercula quadrigemina*, takes another direction, and anastomoses in the nearest point (*au plus près*) with the nerve of the fifth pair.—*Annal. des Sciences*.

AMENORRHOEA.

One of the patients attended for this disease, began to menstruate at the tenth year; she was married when fourteen, and her only child was born before she was sixteen years of age; since which latter period she has never again

menstruated, her age being now thirty.
—*Midland Medical and Surgical Reporter*.

HÆMATURIA.

The patient, a man, aged 65, affected with hæmaturia, discharged for several days a large quantity of blood per urethram; during one day as much as two pints. Three months after the cessation of that disease, he had an attack of apoplexy, and his right side became paralysed. The right foot is now partially destroyed by mortification, apparently caused by deficient nervous action in that extremity.—*Ibid*.

CASES OF SLOUGHING AND REGENERATION OF THE SCROTUM.

By W. AITKEN, Esq. Surgeon*

CASE I.—Joseph D. tailor; a healthy man; about 40 years of age, married. When carrying a child up stairs, received from it a slight kick upon the scrotum; this gave him no uneasiness for several days, when he began to feel a slight pain in the part, and on examination found it covered with a reddish flush. This extended in a short time over the whole scrotum, when sloughing commenced, which, in spite of the most energetic treatment, gradually extended, till, in a few days, the whole bag was involved, and separation at last taking place, it was removed. The parts now presented a very peculiar appearance; the testes, completely denuded of their external covering, gave an idea that if recovery did take place, it must be tedious, and in all probability with the loss of part of these generative organs. The result, however, was different; the parts were dressed with oleaginous applications, and speedily put on a healthy appearance; granulation and cicatrization went on rapidly, and in four weeks a covering for the testes—a new scrotum—was completely formed. The skin of the new production was thinner than that of its predecessor, and it was paler in colour, but it performed with equal fidelity all its purposes. During the whole course of the disease he had no febrile symptoms, nor was his health much impaired. His wife has had two children since the period of this affec-

* Glasgow Medical Examiner.

tion, and he lately died of phthisis. I have thought it unnecessary to introduce a daily report of the above case, as the treatment presented nothing beyond what is usually followed in similar cases. It is interesting to remark, however, the vast power and accuracy which nature exerts in the reproduction of parts which disease or injuries may have destroyed. To such efforts the patient is often more indebted, though little credit is claimed for them, than to the practitioner, who claims the credit of doing the whole.

By THE EDITOR.

CASE II.—JUNE 30, 1828.—T. A. æt. 21, robust, and of a florid complexion, came under treatment for a superficial sore on the inner surface of the prepuce. The usual remedies were prescribed. On the 1st of July the sore was looking clean, but there were slight redness and infiltration of the most depending portion of the prepuce. In the evening both redness and swelling were increased, and there was considerable constitutional disturbance, indicated by great prostration of strength, furred tongue, and quick pulse. On the morning of the 2d, the scrotum was swelled to the size of a child's head, and the penis proportionably enlarged; both were exceedingly painful, and of a deep red colour, mottled here and there with spots of dark purple. The constitutional symptoms were by no means so severe as on the previous evening. On the 3d, the purple appearance had spread considerably, and the pain continued of a severe burning description. 4th, Decided sphacelus, which continued to advance up till the 12th, when the whole of the scrotum and integuments of the penis formed one large slough, which, by the aid of the scissors, entirely separated, leaving the parts in the following state: penis entirely denuded of cellular membrane, from the orifice of the prepuce (its inner surface was entire) to the pubes, testes and cremaster exposed up to within an inch and a half of the ring, the *tunica vaginalis* of the former of a white colour, and completely exposed. The margin of the sore was within an inch of the anus, posteriorly, and consisted of the integuments of the upper part of the thigh on either side; it looked clean, purulent, and granulating. The treatment up to this period consisted of

leeches, purgatives, and repose, on the first appearance of redness and swelling. On the 2d, free scarifications and application of a camphorated lotion, with an emetico-purgative dose of calomel. As the sphacelus advanced, terebinthinate dressings, sulphate of quinine and anodynes, with occasional endeavours to arrest the destructive process by the application of lunar caustic to the sound margin. When the slough separated, the dressings consisted of simple ointment, spread upon the softest lint, with compresses of teazed cotton and a suspensory bandage. This was the dressing employed, along with occasional applications of the solut. nit. argent. until the cure was completed. The process was gradual, but uninterrupted, and its various steps were exceedingly interesting. Both *tunica vaginalis*, in about two days after the separation of the slough, became covered with minute granulations; these by degrees became more luxuriant, and at last effected the coalition of both testes. Meanwhile the edges of the wound were sending out small processes of cicatrization, and it was generally undergoing a gradual contraction. The granulations, which were springing up vigorously upon the penis, began likewise to form little insulated portions of new skin, while the prepuce was becoming gradually reflected, and the integuments of the pubes drawn forward by the contraction of the cicatrix. In this manner the healing process went on, until, partly by the formation of new skin, and partly by liberal demands upon the integuments of the groins, pubes, and perineum, the whole parts were covered in. Such, however, was the contraction of the newly-formed cicatrix, that at first the testes were forced nearly up to the verge of either inguinal ring, producing a sensation amounting almost to pain, and the penis was exceedingly retracted. As an instance, however, of the efficiency of the organs, and of how little his mutilation had acted as a sedative upon his passions, the last opportunity I had of examining him was on account of a new attack of syphilis. At this time the general contraction of the cicatrix had disappeared; the integuments of the penis had not, however, become elongated, so that, in erection, the body of the penis extended beyond them, and the prepuce ended about the middle of its length.

REPORTS OF CASES OCCURRING
AT PUBLIC INSTITUTIONS.

GUY'S HOSPITAL.

*Singular Case of Compression of the Brain—
Operation five weeks after the Accident—
Death.*

JOHN FRIED AXFORD, *ætat* 42, an excise-man, was admitted into Guy's Hospital, under Mr. Key, on Wednesday, December 1st, 1830, suffering under symptoms of compression of brain. His wife states, that five weeks before this time her husband came home in the evening drunk, and that while assisting him into bed, he was seized with a fit of jealousy, and accused her of receiving the visits of another man. Feeling enraged at his accusations, which she alleges to have been unfounded, and seeing a piece of brick, about a quarter of one, lying in the room; she threatened, if he repeated them, to throw it at his head: he did repeat them, when, saying "the word to the action, and the action to the word," she fulfilled her promise by throwing it with some force at his head: it struck him immediately above the left ear, and made a small wound, which did not bleed much: he appeared to be very little hurt, and was not in the least stunned, but got quietly into bed, and slept the whole of the night. In the morning he got up, went to his duty, and at night, as usual, was drunk. When he came home he was taken to a surgeon in the neighbourhood, who put some plaister on the wound, and gave him a purgative draught. On the following morning two small pieces of brick were removed from the wound, and he was ordered to keep the house: this he did for three or four days, when he thought himself well enough to work, at which he continued until last Monday evening; during the whole time he drank a large quantity of gin. On Monday he complained of his legs aching, and in walking dragged them after him. On Tuesday he had two or three attacks of spasm, and could not get out of bed. The woman also says that for nearly three weeks he has not been able to open his mouth as wide as usual, on account of the jaw being stiff; the wound has remained open, discharging a small quantity of pus; he has not had much pain in the head.

It was between 12 and 1 o'clock when admitted; there was great loss of muscular power, so that he could not walk unless supported between two people; pulse 120, full and labouring; both pupils dilated, but the left more than the right; paralysis of the left upper eyelid, and of the right arm; loss of memory, being unable to give the least account of the accident, or to answer the most trivial question; the jaw so contracted

that the teeth could not be separated more than half an inch from each other; there was a wound immediately above the left ear, at the posterior edge of the temporal muscle, a few fibres of which appeared to be lacerated. On introducing a probe, a portion of bone might be felt fractured, and slightly depressed. This ascertained, the wound was enlarged by a crucial incision, and the bone exposed, when a piece about as large as a shilling was found to be fractured in several portions, and a little depressed; neither the saw or trephine were used, one piece being removed by the elevator, the others by the forceps; underneath was seen the dura mater, from which, near the lower edge of the opening, some fungous granulations were sprouting. It was probably owing to the pressure of these granulations that symptoms of compression had more decidedly shown themselves these last three days. In a short time after the operation he appeared much relieved; the pupils contracted; and the pulse rose to 128, and became softer.

To take of Hydr. Submur. gr. ij. Pulv.

Antim. gr. iij. quaque secunda hora.

10, P.M.—Can say a few words connectedly; says he feels better; bowels once opened; pulse frequent, and sharp.

Venesectio ad ʒiij.

2d, 8, A.M.—Has not had any sleep; pulse 120; bowels freely relieved; answers any question, but is occasionally wandering; the paralysis of left eyelid and right arm better; stiffness of lower jaw unaltered.

To continue the Calomel and Antimony every third hour.

Noon.—Complains of pain and stiffness in the loins and both legs, and of an inability to move them.

12, P.M.—The affection of the lower extremity has increased, and now assumes somewhat the character of tetanus; the legs and thighs are extended and rigid; pulse 135, small and sharp; suffers a good deal of pain in the legs.

Venesectio ad ʒiij.

3d, A.M.—Not much sleep; bowels not opened; pulse 120, small and weak; spasm of lower extremities rather increased; at times the legs are a little flexed, but at others they are rigidly extended; abdominal muscles tense; those of the back slightly affected, so as to draw him rather backwards; still, however, the neck and upper extremities are not affected; blood drawn last night not inflamed.

To have a blister to the nape of the neck, and to take a drop of Croton oil directly.

8, P.M.—Bowels opened once scantily; pulse 140, small; spasm much the same.

A half-pint Tobacco Enema to be injected statim.

10, P.M.—The enema returned almost immediately; it produced a good deal of nausea, and the pulse rose to 160; it has now fallen to 124; spasm not quite so violent; belly not so tense; less pain.

To be repeated.

12, P.M.—Enema returned without producing much good; pulse 165, small; legs and thighs very rigid; abdomen more tense; jaw continues much the same; paralysis of arm gone.

4th, 9, A.M.—No sleep; pulse 140, small and feeble; spasmodic affection continues, and at intervals is much increased; he has just had a most severe attack of the whole body; this more resembled a chronic than a tetanic spasm, as the hands were alternately contracted and relaxed; blister not risen; bowels not opened; he is unable to speak, but appears sensible.

To take another drop of Croton oil statim.

3, P.M.—The paroxysms have been more violent and frequent, occasionally affecting the upper extremities; the back feels hard, like a board, and he is raised upon his head and heels; pupils sluggish; bowels not opened. A tobacco enema has been injected, soon after which the pulse was 125; it has, however, been very variable, from 140 to 120.

To have another drop of Croton oil, in giving which nearer two drops than one were given.

12, P.M.—Bowels scantily opened; tetanus not quite so bad; can move the lower jaw a little; says he is in great pain from the spasm; pulse 130, sharp; breathing rather laborious; a small quantity of unhealthy pus discharged from the wound.

Another Tobacco Enema to be used.

5th, A.M.—Has not had any sleep, but has been much quieter; bowels have been freely relieved of a large quantity of green slimy matter; pulse 108.

11, P.M.—Has not had nearly so much spasm to-day; pulse quicker and fuller; skin hot and dry; bowels not again opened.

To take Liq. Ammon. Acet. ℥ss. Vini Antim. T. ℥xv. Magnes. Sulphatis, ℥ss. ex. Aqua Menth. 4ta horâ.

6th.—Tetanic symptoms much better; he now draws up his legs so as to semiflex them; he is also able to open his mouth wider, but is afraid to put out the tongue, lest it should be caught between the teeth; it appears much excoriated, which may arise, in part, from the croton oil which was dropped into the mouth; bowels scantily opened; pulse same as yesterday.

8th.—Pulse 104, small; bowels not opened; spasm has varied a good deal; at times he has been nearly free from it, at others he has been drawn backwards, with the legs quite immoveable, and the abdomen tense; upper extremities quite free; no pain in head; the wound looking better.

Rk Potassæ Supertart. ʒj. Infus. Sennæ, ʒiiss. statim.

9th.—Bowels opened twice; towards night the pulse rose to 120; during the day it had not been so frequent; spasm in back and lower extremities still continues; he is particularly attacked when about to fall asleep.

Another Tobacco Enema has been administered, it remaining in the gut about fifteen minutes without producing any apparent effect.

10th.—Slept well; had this morning another purgative draught; stools of a better appearance; spasm lessened; he can bear his legs to be moved; still complains of pain and stiffness, particularly in the back; pulse 120, small and irritable.

Ordered a dose of Julepum Ammonia, and at night to have some gin and water, which is his favourite drink.

11th.—Gin produced intoxication, and was consequently discontinued; pulse 120, weak; bowels not opened; tongue dry.

To have ʒiiss. of Oil of Turpentine in an enema, and take Julep. Ammonia, ʒiiss. Spirit Ammonia, ʒj. bis et ter die.

12th.—Turpentine has produced several motions; pulse thready, small and irregular; pupils sluggish; pain in head; restless, and rather delirious; lips of wound hot and swelled; surrounding scalp inflamed; head to be kept wet with cold wash, and a purgative draught to be taken in the morning.

13th.—Left side of scalp affected with erysipelatous inflammation; pulse 132, small; bowels once opened; tongue dry and brown; skin hot; is able, with a good deal of difficulty, to turn in bed, but occasionally, on attempting to move, he is suddenly seized with spasm; this lasts for a short time, then disappears; during its continuance he lies like a log of wood.

R Pulv. Jalapæ, gr. xv. Hydr. Submur. gr. iv. statim, et postea. Ammonia Subcarb. ʒss. in statu effervescentia cum Succo Limonum sexta quâque horâ sumend.

16th.—Tetanic symptoms have in a great measure subsided; limbs free from pain, and can move them more easily; lower jaw not much fixed; erysipelas has slightly ex-

tended on the head and face; bowels opened; pulse not so frequent, and fuller; the erysipelatous parts have been punctured two or three times with the point of a lancet, with apparent benefit.

Contin. Medicamenta.

19th.—Has not had any return of spasm, and can now be got out of bed, and sit while it is made; erysipelas is slowly extending over the face, the left side of which is much swollen; complains of pain in the head; is restless; tongue dry and furred; pulse 120, feeble; wound in scalp discharges a good deal of thin curdy matter, and does not heal.

Continue the Ammonia in effervescence, with Lemon-juice, and a purgative draught in the morning.

23d.—The whole of face affected with erysipelas; he is completely blind from the swollen state of eyelids, in which there is matter, with a little sloughing of the cellular membrane; there is an obscure fluctuation, with a doughy feel, at the angle of the jaw, on the right side; inflammation leaving the scalp, and spreading down the neck and chest; tongue dry and wrinkled; thirsty; slight diarrhoea; evacuations offensive and dark-coloured; pain in head, and delirious at times; there was a collection of matter under the scalp on right side of head, which has been punctured.

To be allowed wine. Continue the Ammonia. Have a poultice to the eyelids. And for a lotion, Lotiois Spirit. 3xvii. Ammoniae Subcarbonatis, 3iiss. ft. lotio.

No return of spasm.

26th.—Sinking. On the 24th he rallied a little, but is now worse; wound in scalp gaping, edges everted, and the bone may be seen bare all round the opening; deposition of pus in right cheek more evident; pulse 156, very small and weak; abdomen tender on pressure; diarrhoea continues; motions dark and offensive; tongue typhoid; black sordes have collected on the teeth; is taking wine, brandy, and ammonia.

27th.—Died this morning.

Examination 27 hours after Death.—Abdominal and thoracic viscera healthy; medulla spinalis, and its investing thecae, natural; a considerable collection of matter under the scalp; the cellular membrane sloughy; the dura mater entire, and adhering firmly to the edge of the bone all round the opening in the skull. The pia mater, where it covers the medulla oblongata at the base of the cranium, of a darker colour than usual; the substance of the brain, generally, observed to be particularly firm and healthy; but within the middle lobe of the left hemisphere wholly within the medullary substance, and precisely opposite the opening in the

bone, was found an abscess, containing about four drachms of healthy pus. The thalami and corpora striata were natural. N.

CAJEPUT OIL IN CHOLERA.

To the Editor of the London Medical Gazette.

Brighton, 20th August, 1831.

SIR,

A SECOND severe case of cholera came under my notice in London, a few days since, in which one hundred and twenty-five drops of the cajeput oil, in three doses, were given with success.

The information on which I recommended this remedy did not rest, as you know, on the bare testimony of the servant, but was confirmed by his master, under whose direction he administered it.

In a letter, published in the Madras Gazette of the 20th October, 1825, the cajeput oil is mentioned as having been administered for the first time in a case of cholera in India: I cannot just now find the extract from this letter, but the newspaper may be seen at the East India House. It is singular that the cajeput oil is not known in the Bengal Residency as a remedy in cholera: this I find from the testimony of a gentleman who held a high station there, and of a medical officer, just returned after a service of eighteen years.

Should you have room to insert this in your valuable journal, it may lead to further inquiry.—I am, sir,

Your obedient servant,

M. J. TISSEY.

APOTHECARIES' HALL.

Names of Gentlemen to whom the Court of Examiners granted Certificates of Qualification on Thursday, August 25, 1831:—

William Dixon, of Wakefield.
George Morley, Leeds.
William Platt.

NOTICES.

We have received a letter from "A Calm Observer," pointing out an illiberal attack in the *Lancet* upon Sir W. Burnett. The character of the journal in which it appears renders the refutation unnecessary.

Mr. Middlemore's paper has been delayed owing to accident; it shall appear next week.

W. WILSON, Printer, 57, Skinner-Street, London.

THE LONDON MEDICAL GAZETTE,

BEING A

WEEKLY JOURNAL

OF

Medicine and the Collateral Sciences.

SATURDAY, SEPTEMBER 10, 1831.

DR. PHILIP'S REPLY
TO
DR. PROUT'S OBSERVATIONS
In the Medical Gazette of last week.

*To the Editor of the London Medical
Gazette.*

Cavendish-Square, Sept. 5, 1831.

SIR,

DR. PROUT could not have been half so much surprised at my observations as I have been at the first paragraph of his reply to them. Had I known that a private conversation was to have been thus publicly noticed, I should have been more explicit in what I said. Dr. Prout's feelings seemed hurt, and I felt awkwardly in meeting him so immediately on the appearance of my observations, and carefully avoided, in our conversation, whatever might hurt them farther; but had not the least idea that I left him under impressions so wholly mistaken as I find his were.

With respect to my confession of errors, I am not sensible of having made any. I expressed myself sorry that I had mistaken the meaning in which he used the term metaphysics; but whether this mistake arose from his error or mine is a point in which, if we had discussed it, we should not certainly have agreed.

The impressions left on my mind by the conversation, as I, soon after it, mentioned to a friend*, were that Dr.

Prout had made an improper use of the term metaphysics; and that the difference of our views was greater, and consequently, to me, Dr. Prout appeared more in error, than I had supposed.

Such being the case, and the subject of our discussion one, I conceive, of no slight physiological importance, I hope you will not think the space it will require to enter on it at length ill employed; but that it may not be mixed up with any thing personal between Dr. Prout and myself, I shall here reply to him as far as we have mistaken each other; and in a future communication enter into the subject of our dispute, and endeavour to convince others, as I am myself convinced, that the ground Dr. Prout has taken cannot for a moment be maintained.

With respect to Dr. Prout's use of the word metaphysics, I think it will be admitted that, as he writes in the English language, he ought either to have used the term in the sense in which, I believe, all other English writers use it, or explicitly defined the sense in which he did use it. To leave the reader to infer that sense from the manner in which he uses it, is evidently wrong; because it is quite impossible for the reader to tell whether he attaches a meaning to it different from that of other English writers, or uses it inaccurately—sometimes as meaning one thing and sometimes another.

As to his allusion to the etymology of the word, what would become of any language were we to determine the meaning of words by etymology, not usage? The term physiology would then include the whole circle of the sciences.

* The gentleman I here refer to is Dr. Roget, and I am now pleased that I had mentioned to him the impression the conversation had made on me before the publication of Dr. Prout's reply, and before I was at all aware of the error he laboured under.

In the extended sense in which Dr. Prout uses the term metaphysics, we must consider the following sentence as applying to physiology. "On the other hand, if we know little of the nature of living action, or psychology, it has not been for want of inclination and attempts to investigate it, but simply from the nature of the subject, which, for the most part, is beyond our comprehension." Thus, as far as I am capable of judging, the sentence is rendered unintelligible. Can Dr. Prout assert that the laws of the living animal body are not as legitimate a subject of experiment as the composition of the fibres of which it consists? Are the results of the experiments of Haller, which have influenced the whole science of medicine, less important, less conclusive, or placed more beyond our comprehension, than those of Lavoisier?

What does Dr. Prout mean by saying that the laws of the living animal body are placed beyond our comprehension? If he means that the nature of the organic agent is placed beyond it, we can understand him; but the nature of the organic agent is no more the object of the physiologist, than the nature of gravitation is the object of the astronomer. The phenomena of these powers; not the nature of the powers themselves, are the object of research to both; and will Dr. Prout, on reflection, maintain that it is not as possible to observe and arrange the phenomena of the living as the dead animal fibre? Yet this is what he has maintained in the sentence just quoted, if we keep in view his new meaning of the term metaphysics; for in this he includes the laws of the living animal fibre. It is for this reason that I said that the difference between us is greater, and that Dr. Prout appears to me more in error than I thought him.

Let us turn for a moment to Dr. Prout's own account of the nature of metaphysics. In the first page of his lectures he says, "on the other hand, when we quit material grounds, and launch into the wide ocean of metaphysics, all is fancy and hypothesis." Will Dr. Prout, after due consideration, maintain that to a division of knowledge to which he applies such a description (whether accurately or not, is not here the question), the science of the living animal body belongs? I think, on reflection, he will correct this language; and I am sure that if he does

not, neither physician nor physiologist will listen to it. In writing the sentence just quoted, as well as that quoted above, was not he rather guided by the common, than his own meaning of the term metaphysics?

He is as inaccurate in the use of his terms in his reply as in his lectures. He observes, in the first page of the former, "To prevent the possibility of mistake on this point, a few lines below, the nervous or living principle, or rather action, is expressly included in this term." Does Dr. Prout, then, consider the terms nervous and living principle as synonymous; principles which have not one quality in common? Is not the nervous principle confined to particular organs? Does not the living principle operate equally in all the organs of the living animal? Is not the nervous principle conveyed by the nerves? Have we not seen it made even to leave the nerves and pass through other conductors? What would be said of the physiologist who should maintain that the living principle is conveyed by the nerves, or can be made to pass through any conductor? Ought a writer to complain of being misunderstood who is thus careless in the use of his terms?—farther examples of which will force themselves on us as we proceed.

With respect to what is said in the paragraph which Dr. Prout denotes by number 1, if he will recur to my observations, he will find that the remarks he refers to do not relate to his assumption of the living agent as an ultimate principle,—it is impossible that we should regard it in any other point of view,—but to his explanation of the manner in which the organic principle operates in the chemical changes effected in the living animal body; and I must repeat, that in our reasonings respecting the laws of the vital functions, it is of little consequence whether these changes are directly or indirectly influenced by it. In either case it is proved that the chemical laws of the living animal are not identical with those of inanimate nature; and consequently, that inferences from the latter will never be found applicable to the former. If it were possible that Dr. Prout could even prove his positions synthetically, it would make no difference in this necessary consequence. Dr. Prout's reply, therefore, in no degree bears on the subject of my remarks.

Nor are his observations in paragraph 2 more relevant. Dr. Prout must be aware that I never denied that there are many diseases that are not of an inflammatory nature, and many that require other means than evacuants. What I have said of inflammatory diseases is not, however, on this account the less correct. To shew again Dr. Prout's inaccurate use of the terms he employs, it is only necessary to quote from this paragraph the following part of his comment on a passage quoted from my reply. "But notwithstanding this, I never could bring my mind to believe that the effects of inflammation are merely of a mechanical nature." If Dr. Prout has read my observations, he must be aware that among the effects of the preternatural distention of the vessels, I mention the diminution of their vital power, the irritation of their nerves, and the effect of this irritation on the whole system. Now, according to his definition of the words, whether do these effects belong to mechanics or metaphysics? It is only necessary to refer to the preceding page of his reply to shew that they belong to the latter. What then are we to say to the passage just quoted?

It will appear, I think, from my next communication, that Dr. Prout's want of precision in the use of his terms involves him in much more extensive difficulties than any I have yet had occasion to notice. Unfortunately the inaccurate use of terms tends to deceive the author himself as well as his reader, and thus error accumulates.

If Dr. Prout will recur to my observations, he will find that I do not say that chemistry is "principally limited to urinary diseases." It affords useful aids in many others, but, I believe, in no other class will its application be found so extensive. The urine remains so long in the body after its secretion, and yet is discharged, on the whole, so unmixed, and so little changed, that it affords the chemist opportunities that he can find in no other disease; and we may safely predict that chemistry will never do so much for any other class of diseases as, in the hands of Dr. Prout, it has already done for those of the urinary passages. In my next communication I hope clearly to point out the very different ground on which Dr. Prout stands in his other attempts to apply chemical results to the cure of diseases. From the morbid state of a secreted fluid, we

may learn some particulars respecting that of the organ which secretes it; but we shall find that the very next link in the chain, the cause on which the particular state of the organ depends, either wholly or in a great measure, lies beyond the province of the chemist.

The accuracy of Dr. Prout's observations in paragraph 3, depends on the light in which a reader must understand what he says of diet, in the fifteenth page of his lectures, to which I refer the reader.

The subject of paragraph 4, the digestible nature of sugar, can only be determined by an appeal to experience. I have, in my former observations, stated the result of my own experience on this subject. Dr. Prout says, in the eleventh page of his lectures, "Alcohol, in its pure state, has been long generally admitted to be its worst form; and I am decidedly of opinion, that in subjects labouring under those forms of dyspepsia connected with deficient *energoorganizing* power, which are by far the most frequent, pure sugar is as difficult to assimilate as pure alcohol, and little less injurious." If sugar be thus universally injurious in the most common of all complaints (I have stated in my former observations that in certain habits it is very much so), why is it generally observed that the negroes employed in the mills and boiling-houses in the West-Indies, become sleek, fat, and healthy, in the sugar season; and that we never see any effect of this kind in the spirit shops? In the last part of this paragraph, if Dr. Prout will recur to my observations, he will find he has misunderstood me. He cannot mean that chemistry can ever explain the feelings of disgust, or the way in which these feelings affect the *vital powers* of the stomach.

This observation brings me to the last paragraph of Dr. Prout's reply*, and to one of the chief points of difference between him and myself. In his physiological observations he seems constantly to have in view the chemical department of the science alone, and forgets that there are physiological questions in the

* From certain expressions in this paragraph, Dr. Prout seems to insinuate some doubts respecting the accuracy of the results I have stated. No man stands higher, and I believe justly, as an accurate experimentalist than Dr. Prout; yet many, not inferior in this respect to Dr. Prout himself, occasionally witnessed the results of the experiments in question, and attested their accuracy. Among these I may mention Sir Humphry Davy, Mr. Andrew Knight, and Mr. Briddle.

solution of which chemistry can have no place.

The more perfect our knowledge of chemistry, the better shall we understand the function of a secreting surface, because it operates by effecting chemical changes; the better shall we understand certain effects of respiration, because this function influences the composition of the blood. But could the most perfect knowledge of chemistry assist us in determining the independence of the muscular or nervous, on the sensorial power; or the laws by which the two first, notwithstanding this independent existence, are, though in a different way, subjected to the influence of the last? Could it assist us in determining whether the nervous, like the muscular power, essentially belongs to the organs by which it operates, or is capable of existing elsewhere—a question which essentially influences all our views of the animal economy? Can it assist us in determining how the muscular action of the alimentary canal influences the relative position of its contents, without which it is easy to shew that all the chemical changes effected in it would be vain? In short, can it assist us in any physiological investigation, except in what may be justly termed the chemical department of physiology? a most extensive, I am ready to admit, and most important department, but still only a department; a fact Dr. Prout appears wholly to overlook. But I am encroaching on one part of the subject of my next communication, and must here subscribe myself, sir,

Your obedient servant,
A. P. W. PHILIP.

ON THE TREATMENT OF MALIGNANT DISEASES.

To the Editor of the London Medical Gazette.

SIR,

As I have never seen even one case of the Indian cholera, of course I can only judge of the treatment of that disease by reasoning from analogy betwixt this and other malignant fevers which I have actually seen; but probably I was not far from the truth when I stated that the practice which I had found so useful in the malignant fevers of the western world would be equally successful in the treatment of all other forms of malignant

disease; and perhaps, also, after this treatment has been fairly tried, the outline of the practice in all malignant diseases will ultimately be nearly the same. I can now add, that the same treatment which I have recommended in the yellow fever, &c. has been most extensively used, and with equal success, in the treatment of those malignant forms of the marsh fever which were formerly so fatal in the Genesee country, on the southern shore of Lake Ontario. This country is so flat that the Erie canal runs through it for upwards of seventy miles without even one lock. From being so flat, it is full of marshes; and during the hot months, there are many of the districts in that territory nearly as sickly, and, until lately, nearly as fatal, as the marsh fevers of Sierra Leone. The result, however, is now very different, particularly at Rochester, and other places in that country, where the alkaline carbonates, &c. are now used in place of the calomel, or the mere purgative and bark treatment, which were formerly used in these localities with so little success.

That sickness of the stomach which is so generally met with in the commencement of all those fevers that are produced by the specific aerial poisons, is probably the effect of the poison itself, which is thrown out of the circulation, and causes irritation in the gastric organs, in the same way that tartarized antimony produces nausea and vomiting when we inject a small portion of that agent into a vein: when proper remedies are used, that sickness at the stomach which begins with the disease soon passes away; but that peculiar irritation in the gastric organs which comes on at a later period, and which is often so distressing in the last stage, is evidently in these fevers produced in a great measure by an excess of acidity in the gastric organs. This may perhaps arise from the decomposition of the saline ingredients of the blood by the nervous or electric fluid which appears to exist in excess in all fevers, but particularly in those of a malignant character. After the decomposition of the saline matter, the acids of the salts may be attracted into the gastric organs, where they exist in excess, and act as a source of intense irritation. This, however, is in part theory; but there is no question of the fact, that there is in all the malignant

fevers of the new world, particularly in the last stage of these diseases, an excess of acidity in the alimentary canal, which extends from the very tip of the tongue to the verge of the anus. When we apply at this period of the disease a piece of litmus paper to the foul or red irritable tongue, the test is reddened almost instantly; and when we apply the same paper to the fluids ejected from the stomach, it is reddened almost as suddenly as if it had been dipped in a pure acid. In fact, even the matter of black vomit (which is merely an internal effusion of the black and dissolved blood) receives such an addition of fixed acid in the stomach that it effervesces freely with the alkaline carbonates.

The excess of acid which produces the intense irritation in the stomach is not the acetic, for even the matter of the black vomit has no sour smell. This excess of acid is probably derived from the saline matter of the blood; and as the muriate of soda is the principal saline ingredient in the blood, so I believe that the muriatic is in fever the acid which exists in the greatest excess in the stomach; but whatever the source of this acidity may be, it is, as I have said, at this period of the disease the true source of the intense burning, and that local irritation, amounting even to inflammation, which is the real cause of the gastro-enterite of Broussais. This species, however, of the enterite cannot be cured either by gum water, taken internally, or by leeches applied to the pit of the stomach. The irritation is produced by a chemical cause, and can only be removed by chemical means.

It is at this period of the disease that the alkaline carbonates are of such infinite value: when we give, for example, the carbonate of soda, the fixed acids of the stomach are immediately neutralized by the alkali of the carbonate; a large quantity of carbonic acid is evolved by the mouth, and the irritation of the stomach disappears almost as fast as if it had been removed by a charm.

By this treatment we not only remove that irritation and severe burning in the stomach which is so distressing to the patient, and even so destructive to the gastric organs, but we gain another point, which is at this period of the disease of still more importance than the mere removal of a local irritation. The

fixed acids are, as I have said, immediately neutralized by the alkali of the carbonate. The muriate of soda, and the other natural salts of the blood, are instantly formed in the stomach itself. Now we know that these salts do enter the circulation; we know also that they mix with, and become a part of the circulating blood; we know that they change its properties and remedy its morbid condition; we know also that they add to the stimulating power of the circulating current, and enable the heart to keep up its action.

In consequence of this addition of saline matter, the kidneys, and the other secreting organs, continue to perform their functions. The skin does not become yellow, nor the breath fetid; neither is the mortality one-twentieth part so great as it had been under the old modes of treatment. In fact, the successful results which have already followed the use of the above practice prove that the saline remedies are the agents of all others the best that we yet know of for the successful treatment of malignant diseases.

When there is an excess of acid acting as the source of destructive irritation in the gastric organs, the treatment with the alkaline carbonates is decidedly the best; and those agents are as decidedly the worst the effect of which is in direct opposition to that of the alkaline salts. When there is no excess of acid in the stomach, as sometimes occurs in fevers that are more mild, the carbonates enter the circulation unchanged; and we know that when they are mixed out of the body, even with the black blood taken from the heart of those who have died of the yellow fever, they redden its colour as much as the muriate of soda or any of the other stronger salts. I have also stated, that all the acids blacken the colour of the blood so completely, that with the addition of a little water, even healthy arterial blood is immediately converted into a fluid exactly resembling the black vomit.

The dark colour of the blood, which we observe in the beginning of pestilential fevers, is the effect of the poison on the vital fluid; but the black colour, in the last stage of the disease, is produced by the loss of the saline ingredients, which I can prove are beyond all question the true cause of the red colour of healthy blood. The mere fact that the blood

has a dark colour in all the fevers which arise from poison has been long known, but the causes of this dark colour have been but ill understood. An attempt to redden the dark colour of blood in fever has been with some practitioners the chief object in the plan of cure; but ignorance of the real properties of the vital fluid has led to errors which have been even more fatal than those which now generally exist as the consequence of the doctrine of pure solidism. Acids redden the blue of vegetable colours; and these agents have been extensively used by a certain class of physicians to redden the blood in fever, on the supposition that they contain an excess of oxygen, which they would give over to the black blood, and thus redden its colour. The fact is, however, that though acids redden the vegetable colouring matter, they completely destroy the red colour of the blood; yet these are the very agents that have been thrown in so unmercifully into an organ already burning from an excess of acid, on purpose, as they say, to redden and revivify the colour of the dark blood.

I shall afterwards have occasion to bring forward some melancholy proofs of the fatal effects of the acid treatment, and to show that in some places it has been already used to a fearful extent. The calomel, and some other modes of treatment, have done much mischief*, but the acids have been the agents, of all others, the most destructive in the treatment of the yellow fever, and other diseases that really possess a malignant character.

It has been already stated, that when the blood is black from the loss of its saline ingredients, oxygen is not attracted into the circulation in the lungs after the removal of the carbonic acid; at least, if it be attracted at that period,

even the strongest oxygen has no more effect in reddening the black blood than it has in reddening the black clot that has lost its saline matter, and of course its red colour from immersion in distilled water. Yet, though this practice has been already weighed in the balance and found wanting, we are annoyed almost daily by the recommendation of means for oxygenating the black blood. Oxygenating the blood, however, is of no use in such cases, for the blood can only be reddened by saline remedies. Calomel and antimony may fret the stomach, and add to the suffering of the patients. Acids and opium may and do darken and destroy the red colour of the blood; but when the red colour is lost, as in bad fever, it can only be restored by the use of those remedies which are in reality, in its healthy state, the true cause of its red colour.

It may easily be ascertained, by the litmus paper, whether there be or be not, in cholera, an excess of acid either in the blood or in the fluid ejected from the gastric organs. If there be an excess of acid, then the alkaline carbonates are the remedies, of all others, the most likely to be useful; if there be no excess of acid, then the mixture of muriate of soda and nitrate of potash may probably be preferred; and as all parties agree in admitting that, during the first stage of cholera, the blood is not only diseased, but black in colour and thickened in consistence, I am inclined to believe that, under all circumstances, the non-purgative saline medicines are the remedies, of all others, the most likely to be useful; for they not only redden the colour of the blood, but, by increasing the fluidity of its solid ingredients, and adding to its stimulating power, they will render the blood more fluid, and of course better fitted to serve the important functions which it is intended to perform in the living system.

I will afterwards bring forward some very strong facts to prove that the aerial poisons which act as the remote cause of the essential fevers, do not produce their effect by any direct impression on the nervous system; on the contrary, they appear, like the oxygen of the air, to be attracted into the circulation, and produce their effects on the solids of the system, entirely through the medium of the blood. The diseased state of the blood is the immediate cause of fever—

* The calomel practice, in cholera, had been tried at Warsaw, and found to be of no use even before the arrival of Mr. Searle in that city. Notwithstanding this, he commenced with his favourite remedy; but, according to the latest accounts, he had been trying the saline treatment with the most marked success. The calomel practice appears to have completely failed even in the hands of Mr. S., who is known to have been one of its warmest advocates. In one of the last numbers of the *Journal Universel et Hebdomadaire*, we find it stated in a letter from M. Londe, the President of the French Commission now in Poland, "Les moyens principaux que l'on emploie ici contre le choléra sont: 1° le calomélas à forte dose (buit à vingt grains par heure, on même par demi-heure). Il est administré ici, dans l'hôpital de Bagatelle, par M. S—, médecin anglais. Dans cet hôpital, la mortalité est effrayante."

the diseased action in the solids is merely the effect. I have seen cases in which there was no excitement from first to last, yet these very cases, in which the solids were not injured even in the least, were of all others the most fatal.

All fevers from poison are generally preceded by a stage of torpor; for the first effect of the poisoned blood is to paralyze the heart, and indeed the whole of the vascular organs. The continuance of this cold stage is in proportion to the quantity or the virulence of the poison that has been taken into the system; but in all such cases, re-action is the road by which the animal economy marches to health, and the first duty of the physician is decidedly to bring on re-action; or fever, as speedily as he can. When this is effected, should the reaction run high, the excitement may be reduced by the use of the lancet, and the typhoid symptoms which sometimes afterwards occur may probably be prevented by the subsequent use of the carbonate of soda and other saline medicines, which we know to possess the power of preventing that black and dissolved state of the blood which is in reality, in fever, the true cause of the nervous as well as the other bad symptoms.

The diffusible stimuli produce their effect, in some cases, by a direct and transitory impression on the nervous system; but, as already stated, the saline agents enter the circulation, mix with, and become a part of, the blood. The blood is the natural stimulus of the heart, and the active non-purgative saline medicines decidedly add to its stimulating power: these, when given early in cholera, and in active doses, will, by increasing the stimulating power of the vital fluid, enable it to act with more force on the vascular organs, and in this way rouse the patients from that cold fit, or stage of torpor, in which it appears they generally die.

From what I have seen of their effects in other diseases, I have little doubt that, if the saline medicines be fairly tried, the mortality from cholera will be considerably less than it has hitherto been; but, to say the truth, I do not anticipate much advantage either from the saline or any other remedies, or believe that they will ever be fairly tried, so long as they are used by practitioners who believe that fever is a nervous impression, and who believe also

that all our remedies in that disease act merely by sympathy, or some mysterious agency, on the nerves of the stomach.

It is well known that many practitioners have long been in the habit of using the saline medicines, particularly as purgatives, in the treatment of fever; and many still continue their use, merely for the very substantial reason that they find them useful. The true reason, however, why these remedies are so decidedly superior to all others, in the treatment of this disease, has not, I believe, been generally understood; and therefore these medicines are often combined with acids, or other powerful and adverse agents, which prevent the good effects that would otherwise have followed the judicious use of the active saline agents, given on a steady principle, and used only at certain periods of the disease, when there is almost a certainty of their doing good.

I know it will be asked, why have the citric and other acids been successful in scurvy, where the blood is darker than it is in health? To this it may be answered, that the scurvy is not, like the cholera, or the yellow fever, a disease that causes death in a few hours, or a few days; and therefore medicines that may be used without causing immediate death in the one, cannot be used in the others with equal impunity. My own conviction is, that there is no one disease in the whole catalogue in which the profession has been so much misled as in the very disease now under consideration. During a residence of twenty years in the West Indies, I have only met with one case of scurvy, and that case was decidedly brought on by the excessive use of citric acid, which an American gentleman had been recommended to use as a preventive against the yellow fever. His own conviction, as well as mine, was, that the scorbutic symptoms had been brought on by the acid. This was immediately laid aside, and, under the use of the carbonate of soda, he was quite well in three weeks. To those, however, who are disposed to see the contrast betwixt the effects of the neutral salts and the citric acid, in the treatment of scurvy, I would recommend the perusal of Mr. Cameron's paper on this disease, which they will find in the *Medico-Chirurgical Review*—in one of the numbers, I believe, for 1829.

It has long been, and I am sorry to

observe still is, a common source of error, particularly in fever, to confound a similarity in certain symptoms with a sameness in kind. The sporadic cholera which is occasionally met with during the hot months, both in this and in other countries, is evidently as totally different from the Indian cholera as east is from west. The one is a symptomatic affection, accompanied by a mere momentary excitement, arising in part from a severe local irritation in the gastric organs; the other is a most malignant disease, produced by the existence of a specific and virulent poison in the system, which contaminates every drop of the blood, and excites diseased action in every solid of the body. Such being the fact, it is evident that remedies which are successful in the one, may be not only inert but even actually injurious in the other.

The Asiatic cholera is, as we well know, a most fatal disease, and will require both an active and judicious treatment to overcome the evil effects of the morbid poison; while the sporadic or plum cholera of this country may, I believe, in most cases, be almost entirely left to itself to work its own cure; and were it at all necessary, the cases which are now so numerous in most of the journals might be faced by others, where the patients were obstinate, and refused to take any other remedy except a little warm brandy and water, which was given during the cold fit, on purpose to bring on re-action as speedily as possible. In one case which I saw lately by accident, the symptoms, for the time, were quite as severe as those described in the various journals; yet, though the patient refused all remedies except warm brandy and water during the cold stage, he was just as well (perhaps even better) on the following day than if he had taken 125 drops of the cajuput oil.

There is one circumstance connected with the history of cholera which renders it a much more formidable disease in northern latitudes than either the yellow fever or the plague. The poison which produces the yellow fever requires a given degree of heat to enable it to exist in the atmosphere; and when the thermometer either rises or falls above or below a given range, the plague disappears. But the poison of cholera is not rendered inert by the first morning of frost, as is the case with the poison

of the yellow fever in the United States of America, for it appears that this poison, like that of the small-pox, can produce its fatal effects as certainly in the middle of a winter, in Russia, as in the burning plains of the Torrid Zone. When once introduced, the contagious poisons possess the power of multiplying themselves; and, as the cholera poison acts in every temperature, it is more than probable that if it once finds its way into this country it may remain here as a fatal scourge, not only to the present, but to future generations. This, as well as the great mortality caused by the poison of cholera, imposes a solemn responsibility on those who are, or at least ought to be, the guardians of the public health.

At present I have merely given a general outline, but the same subject will be considered hereafter more in detail. The above has been written in haste, and may probably contain more errors than one: should the treatment, however, which I have found to be so useful in the malignant fevers of the New World, be found, even in the slightest degree, to lessen the sufferings or diminish the mortality of fever in the other divisions of the globe, I will then be repaid for the dislike which I now feel in appearing before the profession as the advocate of doctrines so much in opposition to the common opinions of the present day. That this opposition may be put down to its proper account, is the wish of,

Sir,
Your obedient servant,
W. STEVENS, M.D.

September 5, 1831.

P.S.—The explanation relative to the attraction of the carbonic acid from the blood in the lungs, shall be sent for some future number of the Gazette.

ON "THE ORGANIC AGENT" OF DR. PROUT.

To the Editor of the London Medical Gazette.

SIR,
I some time ago perused with great pleasure, in common, I presume, with most of your readers, Dr. Prout's Gullstonian Lectures on the application of chemistry to physiology and practical

medicine. The subject he has chosen to investigate would seem to be one of singular difficulty, requiring much caution, patience, and acuteness of mind, in order to give it even an air of plausibility—not to speak of satisfactory truth. As Dr. Prout, I doubt not, eminently possesses this kind of talent, every lover of science must wish him success in his new and shadowy region of inquiry.

There is, however, one of his opinions which I cannot regard as being philosophical; but upon which I should not have thought of animadverting, had I not perceived that it has obtained the approval of Dr. W. Philip, as appears from his "Observations" on these lectures, published in the Medical Gazette for August 20th. I allude to the hypothesis of "an organic agent," which Dr. Prout alleges (and Dr. Philip admits) to exist in each individual of every species of organized being. I should certainly not have expected that such an hypothesis would have been advanced by physiologists of so high note; especially as it does not appear necessary (at least obviously necessary) to be assumed in the science of living action, and besides is calculated, by its mysticalness, to retard or discourage the study of this science.

Perhaps I shall be justified in asserting that there are, as yet, only a few facts comparatively, in what is called animal and vegetable chemistry, which are not, either in a greater or less degree, conjectural, or based upon obscure analogies drawn from phenomena in the inorganic kingdom. The reason of the little advancement made in this branch is, that we are altogether ignorant of the circumstances immediately necessary to the production of organic substances. A seed (say an acorn) does not appear to be a very impracticable substance in the hands of the chemist: it has been analyzed, and its constituent elements have been ascertained, apparently with accuracy; but the circumstances under which these elements existed, at the period of their union, are yet undiscovered. We cannot, therefore, it is evident, predicate of a vital process (and this is a fact, the recognition of which is essential to all medical reasoning) as we can of a chemical one.

Respecting a chemical process we can readily predict. We can, for instance, exactly foretell what will take

place when sulphuric acid and carbonate of lime are mixed; we can foretell the proportions in which the acid and the lime will unite, and what will be the nature of the new compound. But of an acorn we cannot thus predict. We cannot, for example, predict what kind of tree it will send up—*e. g.* whether it will be tall and straight, or spreading and crooked; whether it will be healthy or diseased; whether it will grow to be fifty or a hundred feet high, or how long will be required for it to grow to a particular size. We may predict respecting some of these circumstances, with perhaps a slight approach to probability; but that is all we can boast. It is true we predict, strictly speaking, concerning both chemical and vital processes, only after experience; but there is this remarkable difference—we can arrange the circumstances required for a chemical process, and we can foretell, with mathematical certainty, the result. No one, however, will assert the same respecting any vital process: he will not pretend that he can bring together and arrange the elements of an acorn, so as to produce the identical seed; as little will he take upon him to predict with certainty of a given acorn, that it will really sprout, and not (as happens with a large proportion of all seeds) die in the ground.

Again, there is a *unity* in a living being—a certain dependence of each particular part and process upon the condition of the whole—to which nothing in a chemical body, where every portion is independent of the remainder, has any analogy. It is this *unity* which baffles all our attempts to predicate respecting the *precise* condition of a living being. Every living being may be said to be the slave of circumstances, internal and external, which are continually operating; and every change, however slight, is a *new condition*, not of a part, but of the entire being, rendering it susceptible of other changes. So infinite indeed, in number, variety, complexity, and degrees of intensity, are the changes (a great proportion of them contingent) to which an organic being is constantly liable, that no finite mind, were it made acquainted with the *precise condition* of such a being at this moment, could predict respecting the condition of the same the moment after. Joined with this unity in an organic being, as regards all its parts; and this

marvellous liability to change, as respects its general condition; there is a power of resistance to extreme or hurtful changes, of accommodation to new circumstances, and of reparation after injuries, which (together with the vital processes that are in ceaseless operation) has led to the belief that there exists in every living being a superadded agent; or, in other words, that every organic creature (as a tree, for example) has duality of being—namely, the organic agent and the organized body*.

The various opinions entertained respecting this agent—the builder and conservator of the organic being—the reader may find in Barclay's amusing, but dogmatical, and, upon the whole, very unsatisfactory work, on life and organization. It is with Dr. Prout's opinion on this subject that I am at present concerned. "With respect to the nature of the organic agent," he remarks, this (that is Dr. P.'s) view of the subject leads us to the conclusion that in different instances it is endowed with different degrees of power; but that in all cases it must be considered as an ultimate principle, endowed by the Creator with a faculty little short of intelligence, by means of which it is enabled to construct such a mechanism from natural elements, and by the aid of natural agencies, as to render it capable of taking further advantage of their properties, and of making them further subservient to its use." This is the opinion maintained by Dr. Prout, and it is clearly and fairly stated.

In order to place the question, as to the existence or non-existence of an organic agent, in the least perplexing light, I will ask, what is the cause of the difference existing between organic and inorganic bodies? When I examine a mass of alum, I perceive that it is composed of an aggregation of crystals of a particular form. If I dissolve the mass in water, and cause the solution to evaporate slowly, I find that the alum resumes the same crystalline forms; and that, however often the experiment is repeated, the result is the same. When, however, I cast an acorn into the earth, phenomena of a totally different description ensue. A variety of striking

changes takes place, which ends, not in reproducing the same identical acorn, but in producing a new and infinitely larger and more complex body, having no resemblance to an acorn. The question of course recurs, what causes this difference? Dr. Prout will answer, I presume, that the crystals of alum, when dissolved, are re-formed by the power of attraction; that, with respect to the acorn, the case is perfectly dissimilar—that in it there resides a demi-intelligent agent, which, when the seed is placed in circumstances favouring germination, causes it to grow, and in due time, from natural elements and by the aid of natural agencies, constructs the mechanism of the oak. Moreover, that this agent, when it has completed the structure of the tree, and preserved it to a good old age, gradually becomes inactive, till at length its agency wholly ceases, and then the tree is said to die. As to the very natural inquiry which presents itself, does the agent, in this case, die too, or does he transmigrate? I confess my inability to furnish a satisfactory answer.

What kind of being that must be which has faculties "little short of intelligence," I am compelled to confess I have not as yet been able to comprehend. I had imagined that no two kinds of entity could be more dissimilar than an intelligent and a non-intelligent being. The organic agent must, of course, rank in some grade intermediate—not intelligent, and yet not non-intelligent; yet nearer the intelligent than the non-intelligent, possessing a faculty only little short of intellect.

Dr. Prout has spoken only of one kind of agent, "endowed with different degrees of power." He means, if I mistake not, that the agent which constructs the mechanism of the moss and the daisy, is the same in kind as that which constructs the oak, or the elephant, or man; that, in fact, it is an agent of all-work. It certainly appears to me that it would be more congruous (although, on this point, I would offer my opinion with humility) that there should be a different agent appropriated to each species of organic being; for if it be indeed true that a single species of agent, only "endowed with different degrees of power," actually, by a faculty "little short of intelligence," constructs all the infinite variety of organic forms, "from the cedar-tree that is in Leba-

* The reader, of course, will not confound this agent with the soul. With the former we can become acquainted (if it does exist) only by its effects; while the existence of the latter is a primary truth, made known to us by consciousness alone.

non, to the hyssop that springeth out of the walls," and from the goat to the elephant; then is this "faculty" entitled to a higher rank than has been assigned to it by Dr. Prout—to be styled not "a little short of," but unspeakably above, every other mundane intelligence.

I will not take upon me to assert that there does not reside in every living organic being "an organic agent." In an acorn, to keep to our former example, there may be one such agent, or there may be more than one. I shall merely observe that I am acquainted with no facts which prove, or render even probable, the existence of such agency. If an acorn has its organizing agent, so must a crystal of alum have its crystallizing agent; and every chemical and mechanical process must equally be the effect of an appropriate agent. When a crystal of alum dissolves in water, the fact that the particles of water unite with the particles of alum, forming a new substance possessed of new properties, is just as inexplicable as any other process in nature, whether vital or otherwise. And the other fact, when, by the evaporation of the solution, the particles of alum assume the determinate crystalline form peculiar to that substance, presents an instance of regulated motion more simple, it is true, but equally requiring the hypothesis of a presiding agent—as the formation of starch or the secretion of bile. We say, to be sure, that the particles of the water have an affinity for the particles of the alum, and that the crystal is formed by a modification of attraction. But what are these terms, "affinity" and "attraction," but signs which express the facts? They do not stand for the *cause* or causes of the facts (which are totally unknown) any more than when, to express the fact that a wound is healed, we say it was closed by *the vital power* of the body, we mean in philosophical language to express *the cause* of the healing process*.

There is an opinion maintained by Dr. Pritchard, in his work on the Vital

Principle, which deserves to be noticed. It ought to be stated, that he is opposed to the hypothesis of a vital principle, or agent, and that he refers the greater number of organic processes to chemical and mechanical agency. In the germination of a seed, he thinks that all the early phenomena are partly mechanical and partly chemical; but that the processes which follow the development of the young plant, as when the plumbe ascends from between the cotyledons, and the radicle strikes downwards, "point to the operation of a higher power than merely mechanical principles; meaning, I presume, by this "higher power," the immediate agency of the Deity. I cannot help regarding this opinion of Dr. Pritchard's as being quite as unphilosophical as that of Dr. Prout. Surely Dr. Pritchard does not mean that there is *any* mechanical motion which is independent of the Deity. What, then, can be intended by "a higher power" than mechanical principles? for, doubtless, Dr. Pritchard will admit that every instance of mechanical motion is a *mode* and manifestation of the power of Deity; just as a vital action, or series of actions (the germination of a bean, for example), is another *mode* and manifestation (very different, indeed) of the same power.

In physics, philosophers in general are, in the present day, I believe, content to state *facts*, and to leave occult powers, principles, and agents, to the disciples of the schoolmen, if such there be. They know that sulphuric acid has a stronger affinity for soda than muriatic acid; but *why* the muriatic acid has not the stronger affinity, and *how* either has an affinity for soda at all, any more than soda has for potash, is as much unknown as *why* the liver secretes bile instead of saliva.

The whole, then, which we know of vital action is, that it consists in a most complex series of changes, which we cannot in any case imitate; occurring according to a certain order for each species of being, and subject to modification from an infinite variety of circumstances. We are further compelled to believe, by *the highest moral evidence*, that each species of organic being has a determinate form and peculiar properties bestowed upon it by the Supreme Intelligence; in other words, that the *WILL* of the Deity was the direct cause of the first of each kind of animal

* When a wound remains stationary, and does not readily heal, it is usual to say that the vital principle or power is feeble; and when, by the use of a more generous diet, the wound heals, the change is ascribed to the increased power of this principle. Such language is quite proper as expressing *the facts*; but the cause of the closure of the wound is not the more known to us by the employment of certain terms.

and vegetable. Hence it follows that a living organized being (or a pair of beings) constitutes a link in the chain of its own species, the Deity standing in the relation of *direct cause* to the first in the series, which He endowed with properties fitting it to propagate the second; and so the species has been, and is, continued. If it be asked why we cannot imitate or produce a vital process, the answer is, that, for anything we know, the properties which we call vital are too subtle for the grasp of our faculties, even in their highest state of cultivation, and were not intended to be the subjects of our manipulation. It seems probable that the Deity reserves to himself the province of organic life; and that no progress in science will ever enable us to manufacture an acorn, any more than we can now create a new metal by the utterance of a word.

Yours respectfully,

JOHN ROBERTSON.

Manchester, August 26, 1881.

ON THE ADMINISTRATION
OF THE
SULPHATE OF QUININE

In certain Inflammatory Affections of the Eye.

By R. MIDDLEMORE, Esq.

Assistant Surgeon to the Birmingham Eye
Infirmary.

*To the Editor of the London Medical
Gazette.*

SIR,

If your correspondent, A. B. had read my observations "on the utility of the Sulphate of Quinine in various inflammatory affections of the Eye" (published in the 191st number of your Journal) with any degree of attention, he would have perceived that I have by no means misrepresented the opinions of Mr. Mackenzie. I have stated, it is true, that "Mr. Mackenzie has recently recommended in strong terms a plan of treatment which it was opposed to my former communication." and if he will take the trouble of referring to the communication alluded to, he will perceive that I have therein stated an epitome of my observations on the subject of strumous iritis.

an outline of its symptoms—an account of that plan of treatment which experience had convinced me was best calculated to effect its speedy cure—with a distinct condemnation of bleeding and mercury as generally, much too generally, employed for its removal. On referring to Mr. Mackenzie's work, article Strumous Iritis, (and I have a right to consider that work as the most legitimate source of information respecting his present opinions on ophthalmic affections generally) quinine is not mentioned, whilst calomel and opium, given to the production of pyalism, are not only recommended in inflammation of the iris, but also in other cases where the cornea is inflamed conjointly with that texture; and two well-marked instances of what is termed acute primary strumous iritis are related, with a view of pointing out the great value, and the prompt and decided efficacy, of calomel and opium as a means of subduing those forms of inflammation. Surely, sir, it cannot after this explanation be said, that I have omitted to condemn bleeding and mercury as too generally employed in strumous iritis; neither can it be maintained that Mr. Mackenzie has recommended the administration of the sulphate of quinine in the place of that plan of treatment I had so pointedly and decidedly condemned as being in direct opposition to the therapeutical views my attention to such diseases had induced me to adopt; and if the first of these positions cannot be denied, nor the second maintained, in what respect have I fallen into error as regards my recent allusion to Mr. Mackenzie's doctrines?

Although my reference to Mr. M.'s opinions, which has elicited a communication from A. B. only extended to his recommendation of bleeding and mercury in strumous iritis, and did not in any way refer to his opinions on the subject of strumous ophthalmia, (conjunctivitis) yet taking his work as the correct index of his opinions, I am justified in stating that he has not recommended the sulphate of quinine with any indication of confidence in its paramount efficacy, in any form of scrofulous inflammation of the eye, with the exception of strumous conjunctivitis, one of the most manageable forms of inflammation of the eye, and one of its most curable forms, even before the

appearance of Mr. Mackenzie's remarks on the sulphate of quinine. There is no form of inflammation of the eye in which mercury is less freely administered than in conjunctivitis; and I am not even now aware that well-educated practitioners have recourse to, or rely upon the free administration of mercury (by which I mean hydrargyrus, given to the production of its specific effect) for its subduction, particularly when it is found to be connected with, or produced by, a strumous diathesis. If, in such instances, (strumous conjunctivitis) the photophobia be unusually great, and in consequence of the difficulty of examining the eyes minutely, a practitioner will take it for granted that the iris or cornea is involved, and on such grounds merely consents to employ what he then deems safe practice—that is, administer hydrargyrus to the production of salivation—I do not see how the advice of Mr. Mackenzie, or of any one else, founded on the supposition that an accurate diagnosis, as regards the particular texture involved, has been made, can prevent the occurrence of such grossly inaccurate and mischievous treatment.

If your correspondent will examine Mr. Mackenzie's work attentively, at page 418 he will find calomel and opium "carried to such a length as to affect the mouth," and "act decidedly on the constitution," recommended in scrofulous corneitis, but not until the acute symptoms have been subdued by "depletion of different kinds;" and he will in the same article notice that the early administration of mercury is particularly enforced where inflammation of the iris is combined with strumous corneitis. It is true the sulphate of quinine is also advised afterwards; but from the mode in which it is recommended, it would appear to be of merely occasional and secondary utility. I should certainly understand, from an attentive perusal of the treatment of strumous corneitis, recommended in Mr. Mackenzie's book, that the sulphate of quinine might be tried with some prospect of advantage, after bleeding, and calomel, and opium, given to the production of ptyalism, had failed to afford relief.

One of the most frequent forms of scrofulous inflammation of the eye—that is, inflammation of the membrane of the aqueous humour, is not even mentioned by Mr. M. as far as I remember;

and yet nothing can be more certainly detected, or more distinctly ascertained, by one well acquainted with diseases of the eye, than this variety of inflammation. Strumous inflammation of the membrane of the aqueous humour, strumous inflammation of the lamellar texture of the cornea, and strumous inflammation of the iris, whether primary or secondary, whether originally proceeding from inflammation of its proper substance, or produced by an extension of inflammatory action from its serous envelope, possess, it is true, certain points of resemblance; and in those instances where, from the slowness or the duration of the inflammation of any one of these three textures, their particular characters are less distinctly marked than usual, it may be difficult to deduce an accurate diagnosis; but at their commencement, and before any diminution of transparency, or any extension of the diseased action to other textures has occurred, their characters are as distinctly marked, and the morbid affection those characters indicate may be as correctly and promptly ascertained, as the various affections of the separate tunics of many other parts, where we have not an opportunity of witnessing by the aid of vision the progression of diseased action*.

Guided by my own experience solely, I should say that primary strumous inflammation of the iris, by which is meant that portion of the proper substance of the iris covered on its anterior and posterior surface by its serous membrane, is extremely rare; whilst inflammation of the cornea, and of the membrane of the aqueous humour, are by no means unfrequent; strumous scleritis is also an unusual form of scrofulous disease of the eye, whilst strumous conjunctivitis is that form of scrofulous disease most commonly observed, and is familiarly termed scrofulous inflammation of the eyes.

From the various statements contained in the course of the preceding observations, and which are founded, in the general, on opinions comprised in Mr. Mackenzie's recently published work, it appears, first, that he has advised the administration of quinine in strumous conjunctivitis—a disease which, prior to

* In an article published in the twelfth number of the Midland Reporter, entitled "Observations on some Pathological Conditions of the Membrane of the Aqueous Humour," I have entered somewhat minutely upon the diagnosis of the morbid affections of that membrane.

his recommendation, was usually treated by tonics, of various kinds, and particularly by bark and the mineral acids; secondly, that he has strongly advocated bleeding, and mercury given to the production of pyralism, in strumous iritis, and has not even mentioned the propriety of administering quinine in this form of disease; thirdly, that he has also advocated free depletion and the administration of mercury, to the establishment of its specific effect, in strumous corneitis, adding afterwards—what seems quite unnecessary, if the former part of his statement be correct—that the “sulphate of quina exercises a beneficial influence over scrofulous corneitis;” thus leaving his reader to choose from two plans of treatment of a precisely and extremely opposite character, that he may happen to prefer, without bestowing any information to direct his judgment, or decide his practice; and lastly, that he has entirely omitted to mention one of the most common forms of strumous inflammation of the eye, in which the administration of quinine is peculiarly useful.

I trust, sir, you will excuse me for having entered so fully upon this subject, in reply to an anonymous accusation, and that your readers will regard my communication as an attempt to attract attention to a much-neglected department of our profession, rather than an effort to exculpate myself from an implied and unmerited censure. Give me leave to add, that if, neglecting the views of Mr. Mackenzie published in 1831, I had quoted his opinions in 1828 as constituting his present opinions, he might justly have accused me of unfairness.

A DESCRIPTION
OF THE
KARAKA, OR KOPI TREE OF NEW
ZEALAND.

(THE CORYNOCARPUS LEVIGATA OF FORSTER; MERRETIA LUCIDA, SOLANDER MSS.)

*With the Poisonous Effects of the Seeds when
used in an unprepared state.*

BY GEORGE BENNETT, Esq.

Member of the Royal College of Surgeons, &c.

(With an

Corynocarpus læ-
lucid:

retia

Class, Pentandria. Order, Monogynia.

“Folia alterna, petiolata, obovata, a. cuneiformia, submarginata, integra, venosa, glaberrima. . . .

Panicula terminalis, sessilis, magna, rugosa . . . Flores albi.”—*Ann. Sup. Plantarum*, 186.

Corynocarpus.

“Cal. Perianthium pentaphyllum, inferum, foliis oblongis, concavis subcoloratis. . . .

Cor. Petala quinque subrotunda, erecta, concava, ungue angusto, Nectarium: foliolo quinque ascendente, oblonga, acuta petalis paulo minor; basi acuta glandulis botidum globosis. . . .

Stam. Filamenta quinque, subulata, è basi petalorum. Antheræ erectæ oblongæ. . . .

Pist. Germen globosum superum. Stylus brevis filiformis. Stigma obtusum. . . .

Per. Nus turbinato-clavata, monosperma. . . .

Sem. Nucleus oblongus.”—*Forster Charactères Generum Plantarum Maris Australis*, 16.

THE Karaka tree, (*Corynocarpus laevigata*, Forster) also named *kopi* by the natives, is indigenous to, and grows plentifully in New Zealand. It is a tall, handsome tree, with foliage of a dark shining green colour, and attains the height of from forty to fifty feet, but seldom exceeds six feet in circumference: it is found generally growing in low situations, and good soil. The timber produced from it, being of a very soft quality, is useless except as fire-wood. The flowers grow in clusters, are small, and of a white colour; the fruit is ovate, of about the size of a plum, and of a yellowish red colour; the outer coat, enclosing the seed, is pulpy, of no great thickness; in taste sweetish, and is eaten by the natives when thoroughly ripe, and possesses no deleterious quality. The tree is highly esteemed by the natives for the fruit it produces; the seed is also no less esteemed by them, as when prepared they will keep for about eight months, and are therefore valuable, as being capable of preservation for seasons of scarcity. The seed is ovate, and the kernel is inclosed in a soft reticulated shell, of a somewhat membranous texture; after being prepared, it contains a farinaceous substance, of rather insipid taste; but in a raw state, it is hard, and of a white colour. The flowering season of this tree is during the months of July and August, the fruit ripening during the months of November, December, and January. The accompanying drawing represents a portion of the tree in flower and fruit, the foliage and flowers being taken from recent specimens; the fruit from the admirable drawing by W. G. Smith, on, deposited in the British

Museum, in which it is very correctly delineated: (a) represents the seed.

Forster places this tree under the genus *Corynocarpus*, from having the fruit



club-shaped. I never yet, in recent specimens, observed the fruit of that shape, but always *ovate*; and in the drawing by Parkinson they are also delineated of an oval form. He might have taken his description of the fruit from very young or dried specimens, when they may have had the appearance he describes. The delineation of the fruit in his work, (*Characteres Generum, Plantarum Maris Australis*, 16) of what he mentions as the natural size, further leads me to consider that his specimens were very young, as the size is not by some degree that which the fruit attains, nor is the form he has delineated correct.

From this it is evident that the tree is placed in a genus to which it does not belong, and is consequently misnamed.

In an unprepared state the seeds of this tree are poisonous; and therefore, previous to their being used as food, undergo the following preparation:—They are steamed for about twenty-four hours, then taken out, either buried or placed into water, and left for about the space of six days; after which time they are considered to be deprived of their dangerous property. It is said, that if they are soaked in salt water they may be used after only two days have elapsed. If the seeds, however, are

eaten previous to their undergoing the process just described, or before a sufficient time has elapsed for their preparation, they prove a violent poison, the whole of the body being attacked by violent spasmodic pains, vertigo, &c.; and it not unfrequently occurs that the sufferer dies in great agony in the space of twelve hours; and instances have even been known of the sufferer having been killed by his relations at his own request, to release him from his sufferings. Whether any recover, and the severity of the symptoms, depends on the quantity that has been eaten: twelve seeds are the number considered sufficient for producing poisonous effects.

A chief of New Zealand, named Kiwi-Kiwi, related to me an account of the effects he experienced from imprudently eating some of the seeds in an unprepared state, from which he even at that time felt some effect in one of his limbs, although it had occurred several years since. He stated that he was attacked soon after eating them with deafness, violent pain, and what seemed, from his description, to be a partial paralysis of the limbs. He was bathed in warm water, but a week had elapsed, from the time of his eating the seeds, before he was free from pain; but he could not then walk, and it was a month before he perfectly recovered; he also stated, that when the warm water was applied, he did not feel any warmth from it. The quantity he had eaten, fortunately for him, had not been large; less danger was therefore to be apprehended; for when a large quantity has been eaten, the patient never recovers. On asking him why himself and others, knowing them when raw to produce these deleterious effects, eat them, he replied, "that it was their impatience." But it was also observed, that they are generally poisoned, not so much by eating them direct from the fruit in a raw state, as by not permitting them sufficient time of preparation, either "from their impatience" or hunger. On my also asking him whether he knew among his tribe any other individuals that had recovered after having eaten of the seeds in a raw state, he said, that "he knew of only four that had recovered, but several that had died."

Another mode of treatment among them for those suffering under the poisonous effects of these seeds is, by placing the patient into mud, covering

every part excepting the face, forming a mud-bath; and the process is often repeated, the patient being placed into the mud in the morning and remaining until the evening, until either a cure is effected or the patient dies.

London, August 26, 1837.

A DESCRIPTION

TUPAKIHI, OR WINE-BERRY SHRUB OF NEW ZEALAND.

(*CORIARIA SARMENTOSA* OF FORSTER.)

With the Poisonous Effects of its Seeds, Native Remedy, &c.

By GEO. BENNETT, Esq.

(With an Engraving.)

Coriaria sarmentosa.

Class, *Decandria*.

Order, *Decagynia*.

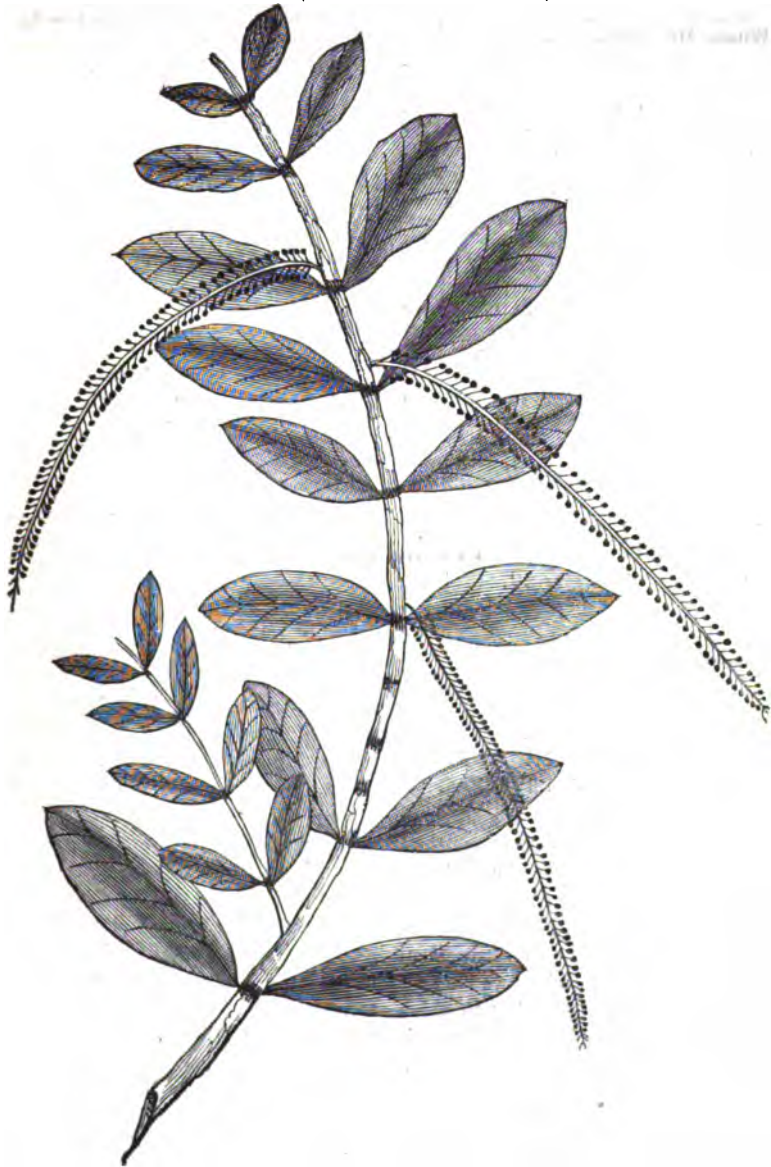
"*C. procumbens diffusa, foliis cordato-ovatis acuminatis integerrimis quinque-nerviis subperio. latis, racemi axillaribus elongatis nutantibus.*"—*Forst. Prod.* 377.

THE *Tupakihī*, (also named *Tutu* by the natives, (the wine-berry shrub of the Europeans) *Coriaria sarmentosa* of Forster, is indigenous to New Zealand, where it is found growing abundantly in low situations and good soil, and its presence is therefore said to indicate the fertility of the land. It has pendulous branches, and seldom attains above the height of six or seven feet. The flowers, of a greenish white colour, are in long, slender, pendulous racemes, and very small. The fruit is a small berry, and when ripe, of a shining black colour, full of a dark red juice, of sweet taste. The following representation of a branch in fruit was from a recent specimen drawn at New Zealand. The juice of the fruit is very palatable, and free from any deleterious property, but the seeds, if eaten in any quantity, are poisonous; the natives, therefore, being aware of this circumstance, after expressing the juice, strain it, so as to avoid the seeds, and then either drink the juice or soak their baked fern root in it.

The missionaries at Pahi (Bay of Islands) make an excellent and palatable wine from the berries of this shrub.

On a visit to that missionary station, July 6th, 1829, I had an opportunity of tasting the wine, and found it very

agreeable, and greatly resembling our *elder-wine*. In preparing it they are careful to strain it well, so that none of the seeds remain. A gallon of brandy is added to thirty gallons of the wine. A bottle of this wine, which was given to me, kept well, as it was excellent on the 8th of October, 1830,



and did not differ in taste from that which I had previously drunk. The effects which result from eating the seeds are convulsions and delirium, which will continue for thirty-six hours, and sometimes death ensues, but that depends on the quantity that has been eaten. The following remedy, employ-

ed by the natives, will frequently remove the severer symptoms before twenty-four hours have elapsed. They first secure the patient, and then apply mud over the upper part of the head, and adopt a rough mode of venesection by making incisions on the forehead: by these remedies the patients are generally cured.

One of the missionaries informed me that he once sent some native lads to collect some of the berries, for the purpose of making the wine. One of them, although conscious of the consequences, imprudently eat some quantity of them; on his return he suddenly fell, as if shot, which was followed by violent convulsions of the face and limbs. These convulsive fits frequently returned before his final recovery. The remedy used by the missionary (Mr. Fairburn) was to give purgative medicines, which succeeded in curing the patient.

London, August 25, 1831.

MEDICAL GAZETTE.

Saturday, September 10, 1831.

"Licet omnibus, licet etiam mihi, dignitatem *Artis Medicæ* tueri; potestas modo veniendi in publicum sit, dicendi periculum non recuso."—CICERO.

DRS. TURNER AND THOMSON IN ANSWER TO MR. PATTISON.

THE two former of these gentlemen have addressed letters to the proprietors of the London University, in reply to some remarks in Mr. Pattison's "Statement." We have perused them carefully, and find nothing in them calculated to alter the opinions we have already expressed on the subject to which they refer;—still, as impartial journalists, we feel called upon to notice them.

Dr. Turner, whose letter comes first, urges, that previous to his connexion with the University, he had "no acquaintance whatever with Mr. Pattison;" but that "circumstances very soon led him to consider his appointment as an

unfortunate one;" nevertheless, he did all in his power "to contribute to his popularity." In proof of the general accuracy of these assertions, he refers to the statement of Mr. Pattison, in which some of the facts most favourable to the *ex-professor* were obtained through Dr. Turner. As a farther illustration of the absence of hostile feeling, the writer also brings forward the letter of the 9th December, 1829, containing the result of an inquiry into the charges against his late colleague, in which the strongest indignation is expressed against those by whom they were adduced.

There can be no reasonable question of Dr. Turner having been free from any feeling inimical to Mr. Pattison up to this time; but, in the after part of the second session, the charges against Mr. Pattison assumed a more definite shape, and being brought forward by certain students, in their own names, Dr. Turner became of opinion that Mr. Pattison ought to have met his accusers face to face, and "exposed the absurdity of their objections." But in what manner this trial of their Professor by the students was to have been conducted, and what prospect there was of such an anomalous proceeding leading to any satisfactory result, Dr. Turner does not inform us. We ought, however, to add the statement of the learned Professor—that "he knew, from his own observation, that some of the complaints of the students were well-founded." These circumstances produced so great a change in the sentiments of Dr. Turner, that after the termination of last session he informed the Council "that the unpopularity of Mr. Pattison had reached such a height that his continuance in the chairs of anatomy and surgery was incompatible with the existence of the medical school;" and offered to contribute towards allowing him an annuity if he retired.

Such are the chief observations offered by Dr. Turner in explanation of circumstances affecting himself. He next proceeds to speak of the "persecuted warden"—of the students, and of Mr. Bennett. On the first of these points, all that Dr. Turner offers in behalf of Mr. Horner is an expression of his own opinion that an early and unreasonable dislike was taken by certain professors to the late warden, while, with regard to the subject of the present letter, we are told that the circumstances, "in every instance, followed the events which Mr. Pattison endeavours to prove them to have produced." No illustration of this opinion, however, is given, by which the reader might have judged for himself. It appears that Mr. Horner is not at present in London to defend himself, otherwise Dr. Turner informs us that Mr. Pattison's accusations "would dwindle into merited insignificance." It seems to us, however, that there is but one method by which they can be deprived of their force—namely, by shewing them to be untrue. Mr. Pattison states that Mr. Horner wrote a letter against him, and had it copied by a pupil: now either this is true or it is false; and if the defender of the late warden be not prepared to shew that it is the latter, we apprehend little weight will be attached to any other manner of meeting such a charge.

As to the students, Dr. Turner informs us that they were "diligent in their studies, correct in their conduct, and respectful to their Professors," till Mr. Pattison attempted "to introduce a novel system of discipline;" in other words, the blame is laid at the door of the ex-professor, though the conduct of his pupils is not justified when it had attained "that ungovernable height to which large assemblies are prone when violently excited."

With regard to the late Mr. Bennett, Dr. Turner expresses his conviction

that he was incapable of "a systematic attempt" to injure Mr. Pattison; but that he was labouring under disease, attended with "extreme irritability," and had "a very low estimation of Mr. Pattison's attainments." These combined circumstances led to that "unfortunate exposure" to which allusion has so frequently been made, but which, Dr. Turner informs us, was in direct contrast to his general conduct towards his colleague in the chair of anatomy.

Dr. Thomson concurs generally in the statements of Dr. Turner, and proceeds to explain what he calls the apparent inconsistency of himself and his friend, "in first signing the letter in Mr. Pattison's favour, of December 9, 1829, and subsequently taking a part so much at variance with its tenor." Much stress is laid upon the manner in which the charges were originally preferred against his late colleague; besides which, the writers of the present letters "were satisfied that the complaints were in a great degree exaggerated, and in some respects untrue." Still, Dr. Thomson says he was aware that "some ground" of discontent existed. On this subject, therefore, he "took the liberty of a friend," of speaking to Mr. Pattison, but his remonstrance was disregarded; and "the information which the students acquired from their demonstrator enabled them afterwards to perceive the deficiencies of their Professor." Such being the case, Dr. Thomson argues, that "the charge of inconsistency cannot be justly urged either against them or him." The writer then proceeds to shew that he was not answerable for the acts of Dr. Alexander Thomson; but into this question it is not necessary for us to enter: it is a point on which the readers of this journal need no farther information.

When the open hostility of the students to Mr. Pattison attained the la-

mentable height which was displayed during the last session, Dr. Turner and Dr. Thomson were waited upon by the students, who urged them to use their influence with the Council to take their complaints into consideration: they complied with this request.

Such is a faithful account of the statements of these gentlemen, which (on us at least) have not produced all the effect they were probably intended to have on those to whom they are addressed. Regarding the writers as honourable men, we implicitly believe their statements, and freely absolve them from all premeditated design of ousting Mr. Pattison; but while we go thus far, we cannot stretch our concurrence any farther: indeed we are more than ever convinced in the correctness of the conjecture we made in a former number—"that at first his colleagues were anxious to support him, for the general benefit of the school; but that afterwards, fancying they found him deficient in those attractive manners which secure the good opinion of an audience, or those commanding talents which crush all opposition, they at length made up their minds to throw him overboard, with a view to their common safety." Such was our opinion, and such it continues to be, notwithstanding the explanatory letters of Drs. Turner and Thomson, and in despite of the second rejection of a proposal to re-instate Mr. Pattison, which was made last Saturday. And this leads us to observe, that the question of Mr. Pattison's restoration by the Proprietors of the London University, is one very different from that of his original dismissal by the Council. In the first instance, a dislike was taken to Mr. Pattison on grounds so vague that they are not assigned even in the resolution which declares him to be dismissed; indeed, this is followed by a complimentary minute, which, if it

means any thing, amounts to an admission that the Council had acted unjustly. But the Proprietors, as a body, cannot enter into such investigations; and as the restoration of Mr. Pattison would unavoidably have led to the resignation of the writers of these letters, and possibly of other teachers of unquestioned reputation, the adoption of such a measure would have carried with it the disorganization and speedy ruin of the school, without even a chance of its redemption.

COLLEGIUM-WAKLEYANUM— CORONER'S INQUEST.

It is our painful duty this week to record another melancholy case of death from inanition, the particulars of which have just reached us, and which will enable us in some degree to satisfy the curiosity of certain readers who have from time to time been inquiring about the fate of the thing with the long name above-mentioned. They must know, then, that it is defunct—has died a violent death—and has vanished, for aught we can gather, into thin air. The truth is, that we were for some time back as much in the dark as those curious readers of ours concerning the fate of the Collegium-Wakleyanum until this recent intelligence reached us. We knew that its miserable existence could not, in the nature of things, be of any lengthened duration. "Born in dishonour, it was to perish in disgrace"—that we long ago predicted; but we were far from being prepared to hear of its incontinent dissolution under circumstances of such appalling wretchedness. It expired from want of needful sustenance: it was literally starved to death at its lodgings in a waste room near Waterloo Bridge. But, from all we have heard, the circumstances attending its dissolution were of the most violent and revolting kind; such, indeed, as we should not

feel justified in committing to our pages, even if it were permitted us at present so to do. Let it suffice to state that its struggles in its latter moments were dreadful: a thing not to be wondered at, as its sufferings and privations, since its ill-omened birth, were well known to be far from voluntary; and the end of it, we are assured, would most infallibly have been suicide, had the creature had but strength enough to commit its own self-murder. A coroner's inquest must be held forthwith to investigate publicly the particulars of this remarkable affair, and as little delay as possible, we think, should be interposed, lest the remains of the deceased should be found to be too far gone to admit of a post-mortem examination. A medical coroner, it is thought by some, would be the most fit and proper person to hold the inquest; the more so, as the cruel and unnatural parent—who, we should have mentioned, is strongly suspected of having laid deadly hands on his own offspring—is said to dabble very much in medical matters, and might take every advantage in embarrassing the case, were the coroner as simple a man, for instance, as—several we could name. We intend to be present on the occasion, and to assist in the proceedings, if necessary; at all events, we shall take care that an accurate report of the inquisition be recorded in our pages. Disclosures of the most extraordinary kind are expected to be made; and we wait the event, we confess, with some degree of impatience. But our readers must allow, that, under all the circumstances of the case, it is but following the most prudent plan to permit the law to take its course. To publish, though upon never so good authority, such facts as have come to our knowledge, would evidently be, to say the least of it, premature, and likely to prejudice the ends of justice.

EXTRACTS FROM JOURNALS, *Foreign and Domestic.*

TABLE LUXURIES OF THE ROMANS.

THE meats used by the Greeks did not materially differ from those approved by the Romans. Some of the luxuries of the latter are less esteemed at the present day, such as puppies, and the large white worm found in rotten wood, which is now extensively used, we believe, only in New Holland. The snail was another of their dishes, which has now lost favour, except in Germany, notwithstanding an attempt to revive it, made by two men of science in Edinburgh, half a century ago. The supper of Pliny consisted of a barley-cake, lettuce, two eggs, three snails, with a due proportion of wine.—*North Amer. Rev.*

A WHOLE FAMILY FROZEN TO DEATH.

A correspondent gives us the following melancholy statement of the effects of cold in America. On the Great Prairie, in the state of Illinois, a family, consisting of a man and woman with six children, who were travelling across it last winter, were found literally frozen to death. The condition in which they were discovered, if possible, adds still more to the shocking scene. A little child was clasped in the mother's arms, and five others lay around her. An axe and flint were found in the hands of the father, by which it would appear he had been endeavouring to strike a light, and make a fire. Four horses, which were with them, were lying dead in their harness, and a part of the waggon had been cut into small pieces for fuel.—*Athenæum.*

POPULATION—UNITED STATES.

The result of the official census, up to the end of December last, shows, that there are at this moment six-and-forty towns in the United States whose population exceeds five thousand souls. New York, which has 213,170 inhabitants, takes the precedence; then follow, Philadelphia, 161,412; Baltimore, 80,519; and Boston, 70,464. Of cities, possessing above 20,000 souls, there are four; above 10,000, eleven; above 8000, six; above 7000, three; above 6000, eleven; and above 5000, six, of which latter class, York, with a popula-

tion of 5205, occupies the lowest rank. The total number of inhabitants, in these six-and-forty towns, is 971,457 of both sexes.—*Ibid.*

CINCHONINE AS A REMEDY.

Cinchonine is insipid, or at least its bitterness is only perceptible after a time. It has been successfully used in intermittent fever, in doses of from six to twenty grains during the apyretic stages. It has also been employed, and with the same success, in stomach cases, where acidity is present, as in persons of delicate constitutions, particularly women, affected with leucorrhœa, languor, melancholy, or that sort of general uneasiness which inspires both patient and physician with despair. M. Dufresne, of Geneva, recommends cinchonine as a medicine of great value: he has employed it in numerous cases; and in his treatment of the insane under his care, has found it of precious efficacy. He tells us that it is not expedient to combine the cinchonine with any acid preparation; the muriatic acid, which exists in the stomach in a free state, and constitutes one of the principal agents in the digestive process, is sufficient for its solution.—*Bibliothèque Universelle, May 1831.*

THE RUBBING SYSTEM IN FRANCE.

In cases of general debility, arising from old age, or any other cause, Dr. Balfour employs the method of *frotteing* and percussion to rouse the languishing state of the circulatory system; and his plan of proceeding is this:—

1. The patient keeps on his lower garments—his stockings, drawers, &c. and lies stretched on his bed. The operator then takes the upper part of the leg, and having drawn his hand eight or ten times along its length, smites it with his palm. When both legs have been treated in this way, the thighs are next proceeded with.

2. Turning the patient on his belly, the operator *frottees* first the hind part of the legs, and then the thighs.

3. As the back cannot be treated exactly in the same way, it is pinched with the fingers, and smitten with the palm of the hand.

4. The patient rises, and the operation is similarly performed on both arms.

By means of the excitement thus pro-

duced in the circulation on the surface, the blood is transmitted with more than its habitual velocity from the deeper parts of the body to the skin. The finest extremities of the nerves of motion and sensation are stimulated, and the nervous power is evenly diffused throughout the whole system.

Nothing can be more pleasant than the patient's feelings during the operation, when it is properly performed: he experiences through his whole frame a strongly-defined sentiment of pleasure. His perceptions, too, are more distinct, his intellect more vivid, and he feels himself getting rid of that uneasiness which the body never fails to endure when it is affected by any trouble of the mind.

Many diseases—but particularly those of the rheumatic class—have been alleviated by Dr. Balfour's method, and many even completely cured.—*Gazette des Hôpitaux.*

[*Query.* Is this animal magnetism, or the old method of shampooing under a new form?]

PREPARATION OF SALICINE.

The bark of the willow is to be dried, crushed, boiled for one or two hours in water, and the liquid separated by a cloth and powerful pressure. Subacetate of lead is to be added as long as precipitation occurs; the whole filtered; the clear liquor boiled with enough of carbonate of lime to decompose the excess of acetate of lead, saturate the acetic acid, and remove the colour. Being left to settle, the clear liquor is to be decanted, the deposit washed twice or thrice, the washing liquor added to the former, and the whole evaporated to the consistence of an extract. This extract, whilst hot, is to be put on bibulous paper, and pressed for some hours; after which it is to be digested in alcohol, of s. g. 0.847, when the fluid is filtered and concentrated, it will yield crystallized salicine, very white and pure.

Salicine thus obtained, when administered in doses of from fifteen to eighteen grains, during the apyrexia of intermittent fevers, is said to have been found effectual in arresting their progress.—*Ann. de Chimie.*

THE LATE DR. DE LYS.

DIED, on Wednesday, the 24th ult. at Edgbaston, in his 49th year, after a lingering illness, Gabriel J. M. de Lys, M.D. one of the physicians to the General Hospital in the town of Birmingham. Dr. de Lys was the representative of the noble family of his name in Brittany, but left France, when a child, with his father during the early troubles of the Revolution; and from that time he resided in this country. He was educated for the military profession in the school for the sons of French emigrant nobility, at Penn, in Buckinghamshire. Subsequent changes in the political prospects of his country induced him to relinquish this pursuit, and he commenced the study of medicine. Having passed with distinguished approbation through the regular course of professional education, he graduated in 1808, and in the following year settled in the town of Birmingham, where his scientific acquirements and practical skill, his indefatigable, faithful, and tender discharge of the duties of his profession, his punctilious attention to the claims of its older, and his active zeal for the advancement of its younger members, raised him to the highest eminence in the esteem of his medical brethren, and of the public at large. Those who enjoyed the happiness of his intimacy lament the loss of a friend, whose unbending and scrupulous integrity, the importance of whose counsels, the energetic zeal of whose good offices, the warmth of whose affections, the simplicity of whose manners, and the interest of whose conversation, they will ever hold in affectionate remembrance. His able lectures at the Birmingham Philosophical Institution are still fresh in our recollection; and the school for the instruction of deaf and dumb children, at Edgbaston, founded in consequence of the interest which some of these lectures excited, remains a monument of his benevolence, and of the success with which he could apply his acute and vigorous understanding to a subject not falling within the scope of professional attention. He was successively appointed physician to the Dispensary, General Hospital, and Eye Infirmary, in the town of Birmingham; and his assiduous attention to the labo-

rious duties of his profession, and the anxious interest he felt in his patients, acting on a naturally delicate constitution, it is too probable, considerably hastened his premature and lamented death.

POISONING WITH PRUSSIC ACID.

WE make no apology for laying the following trial before our readers: its great importance will be immediately evident to the medical jurist*, while its interest and novelty (for it has never been published) will, we doubt not, render it generally acceptable.

Spring Assizes, Leicester, April 2, 1829.

(BEFORE LORD CHIEF JUSTICE BEST.)

The King v. Freeman for the Murder of Judith Buswell.

Mr. Denman stated the case for the prosecution, and after an eloquent exordium, thus proceeded.—Gentlemen, The deceased and the prisoner lived in the same house—in the house of Mr. Biggs, a druggist, situate in this town. They had lived together in the family, I understand, from about Michaelmas 1827, until the 12th February, when she was found dead. He had been apprenticed to Mr. Biggs some months before that time; she, I think, came into his service about Michaelmas, but that is not very important. He was only an apprentice to the trade, and she was only a servant in the family. On the morning of the 12th February workmen came about seven o'clock to the door, and it was expected that the deceased would let them in; they knocked, but they received no answer. Upon which Mr. Biggs, the master of the house, went to the door, and let them in; and then went and knocked at the door of the deceased's room, to inquire how it happened that she had not answered that call? He received no answer; he went directly to Mrs. Biggs, who, immediately upon entering the room, saw that she was dead. She was lying with her head a little raised upon the bed-head, with the clothes drawn up to her breast, not folded in any way, with her two hands lying by her side; there was no appearance of distortion or struggling at all on her features. A woman, who was in the habit of rendering service to the family, was sent soon after, who will describe to you her appearance in the same manner; she also saw her in the course of about half an hour afterwards, and discovered

* See Professor Amos's last lecture, *Medical Gazette*, page 578, present volume.

a bottle, containing a considerable quantity of prussic acid, within the sheets of the bed.

I need not observe, upon what I believe to be universally known and understood, that that drug is one of the most speedy and fatal poisons known to man, and the administration of a very small portion produces almost immediate death. An alarm was instantly given. I don't find that the young man came into the room at that time, but there was an alarm given, and inquiries were immediately set on foot. Mr. Biggs thought it his duty to go instantly to the high constable, and detail all the circumstances that appeared; having in the first place, however, sent for a surgeon, who found it was too late to try any remedy; she was quite dead. The surgeon formed at the time no opinion of the cause of her death; but upon examining the body, there was found within her stomach a considerable quantity of prussic acid.

Now the first question that occurs to every man upon a subject of this nature is, whether or not the deceased could have been the cause of her own death? Upon that subject there is one circumstance which undoubtedly makes it by no means improbable it might have been the case here, because it was found that she was six or seven months gone with child; and certainly a female under these circumstances, an unmarried person, may have possibly thought of destroying herself; but I think, when you hear all the facts detailed, you will be clearly of opinion it is quite impossible the young woman should have been the cause of her own death. It will be for you, upon the whole of the evidence, to say whether that shall appear to you to be possible. I rather apprehend, when the case is fully ascertained, you will be calmly of opinion it could not be so; because, since the indictment was preferred, inquiries have been made amongst medical men, and experiments have been tried by those persons, so as to leave no doubt upon their minds, that if the deceased had administered the drug to herself, she would have been incapable of doing any thing; she must instantly have perished; she could not have corked the bottle after swallowing its contents. The other facts in the case go further to shew she could not have contemplated her own destruction, because it appears there is no reason to suppose she was labouring under any illness, or any depression of mind; there was nothing like derangement about her, although she was pregnant. Indeed, it does not appear that she was in any state of mental inquietude at all at the period; on the contrary, having had medical advice for certain purposes, she was getting better, and had been in cheerful spirits, and she went about her work as usual in the family on the 11th February, which was Wednesday. On the Tuesday she had been engaged in brew-

ing in addition to her other duties about the house. In the course of Wednesday she had gone about all her duties, quite in the ordinary way, and she went to bed without exhibiting any symptoms of agitation or distress; she made preparations for what she was to do on the following day. It appears she put off her day clothes, and had on her night clothes when she was discovered in the bed. The candle had been taken out of the socket, and laid across the candlestick; a little hair was found, as if she had been combing her head, with a view to the cleansing of her person. There was no one circumstance which appeared to shew there was any thing like a departure from her usual course of life, as if in expectation that the day would not come round again which never dawned upon her. These circumstances seem to make it clear she could not have been guilty of suicide; and if she was not guilty of suicide, it is quite plain that some person must have administered the fatal drug to her, and the inquiry then would be, who that person is?

Now I think I should tell you, in the first place, that no suspicion at all attached to the prisoner. Mr. Biggs sent to the high constable, and inquiries were carried on; he also sent the prisoner with a note to the relations of the deceased to announce the state of things existing at his house, and he expressed a wish they should come over: I believe he expressed no more. One note was sent to the father, and another to the brother, living some distance from Leicester. The prisoner was the person who took both the notes, and perhaps the earliest fact, in point of time, which led to suspicion, was the conduct he pursued with regard to the message which he took. Of course you, gentlemen, will not be so unreasonable as to expect that any direct evidence can be given of the guilt of a person upon a charge like this, because if a person could be wicked enough privately to commit a murder in the dead of night on an unprotected female, it is not to be supposed he would let any human eye be a witness of the transaction. Therefore, in a case of this sort guilt cannot be proved except by a train of circumstances, which must be put together, and carefully and deliberately laid before the jury, who are to discuss them; and the question will be whether, considering such a case as this as freely from passion as it is possible the human mind can consider it, they are, or are not, satisfied that in point of fact the individual pointed at is proved by those circumstances to be guilty.

Now the first thing that appears in point of time after the death of the deceased is, when the young man took over the message to her relations, he appears to have expressed considerable anxiety that the body should be

immediately buried without being examined—without having a Coroner's inquest. It is natural enough to suppose that the relations would be glad not to have any examination of the body after death; a thing to which many persons in their sphere of life have a great objection. It is not unnatural that he should give advice of that kind, as a suggestion which might be agreeable to their feelings; but at the same time, it is a circumstance not to be forgotten in a case of imputed guilt, that nothing is said about a Coroner's inquest, or about an examination by the relations. It was certainly, therefore, rather busy in the prisoner suggesting it; and that they should come over immediately, and have a coffin knocked up, that she should be buried in a short time, that the Coroner's inquest might be altogether avoided, and the body might altogether escape examination.

Gentlemen, the Coroner's inquest sat, but they had no evidence upon which they could form an opinion as to the deranged state of the deceased's mind, that she was likely to commit the act from insanity, but there was one circumstance which required investigation. It was found that a large quantity of prussic acid had been received into her stomach, which it was satisfactorily ascertained she could not have taken herself, and the next inquiry was, who could have furnished her with it? The prisoner was examined upon the subject, whether he had had any conversation with her upon the subject of prussic acid? Upon being repeatedly pressed upon that point, he constantly answered, *he never at any time had any conversation with her upon the subject of prussic acid; that he expressly stated. I believe he also stated, that he remembered something had been read in a newspaper, in her presence, about a person of the name of Montgomery, who had died in prison by taking some prussic acid, but he denied having at any other time, on his own part, had any sort of conversation with her. Inquiry was made of Mr. Biggs, as to what stock of prussic acid he had in his house, and it seems his practice is only to have a bottle of this drug containing about an ounce—that is considered quite sufficient—that it is obliged to be kept in a particular manner in the shade, otherwise it will lose its power. Mr. Biggs began to inquire upon the subject, and he found a bottle of prussic acid was sent to him in May 1828, but he was able entirely to account for that, having sold it to some person. The empty bottle was left upon the premises. It is called by another name, which perhaps is more scientific, namely, by the name of hydrocyanic acid. Mr. Biggs at the time was not aware that there had been any more procured. Upon the Friday night, when the Coroner's*

*inquest first sat, it was adjourned, that Mr. Biggs might make further inquiry. On the Saturday morning Mr. Biggs came with his invoices to the Coroner's jury, stating all the quantity he had received, and the order he had given at a recent time. He brought an invoice with a great variety of articles. There was prussic acid mentioned in the invoice, which it appears was sent by Messrs. Evans and Leeker, wholesale druggists in London. They had received an order in January to send a variety of things, including a bottle of prussic acid, to Mr. Biggs, at Leicester. That order had been executed, and the articles were sent down upon the 20th of January. Now the duty of the prisoner, upon receiving packages, was to sort them, to unpack them, to lay out the articles upon the counter, and see that they were all right, according to the invoice, and to mark the invoice if there was any thing wrong. The prisoner had actually gone through this invoice, and had marked two or three articles which did not precisely answer the true description—they were not quite correct. He had gone through the invoice, and compared it with the articles, and the bottle of prussic acid was one of the articles marked by him as wrong. Mr. Biggs had not seen them at all. The proper place for keeping the prussic acid was below stairs, among a great variety of articles. Upon the paper being produced, and when it was discovered, the young man was again brought before the Coroner's jury and a magistrate. It is important in the case that it was discovered, in fact, by Mr. Biggs himself, and that as soon as he discovered it, he again went to the Coroner's jury; also that no time was lost before it was produced, which shewed that he was not unwilling to have the whole matter fully investigated. The young man was then again examined, and he was asked upon the subject, whether he remembered unpacking that article? but he stated he had seen nothing of the prussic acid. The question was again put to him, whether he had had any conversation with the young woman upon that subject? and then he admitted, contrary to his frequent declarations upon the former inquiry, that *he had, in fact, had some considerable conversations with her upon that subject; that he had shewn her the empty bottle of prussic acid which had been there before; that he told her it was a fatal poison; that he had told her a very small quantity of it, in its natural state, would be sufficient to destroy life. He also told her it was the drug by which a person of the name of Montgomery had died in prison, which she had heard read of in the newspapers. This is a different account from what he had given in the first instance. This account is given in consequence of the item being discovered in the paper, and**

pointed out to the jury by Mr. Biggs, who found that in the paper which had been overlooked before. That bottle of prussic acid might very possibly have been the bottle which produced the death of the young woman. The bottle which was found in the bed is said to have contained, I think, about three drachms. The prussic acid mentioned in this invoice had been eight drachms; five drachms had been taken, and I fancy very near that quantity was found in the stomach of the deceased, when she was examined after her death.

Now, gentlemen, these are the circumstances connected with the prussic acid, and they seem to make it clear that the deceased had received prussic acid (and was aware of its quality) in some way or other, in the course of the night of the 11th, after she had gone to bed; and at seven o'clock in the morning she was found dead, having to all appearance been dead some hours; prussic acid having been administered to her; and certainly the bottle found upon her corresponded in all respects with the bottle sent from London, and which had never been mentioned by the prisoner; and it was the prisoner's duty to go over with the invoice and see that all was right. The inquest was adjourned for a week, in order that inquiries might be made about the poisonous drug which had come down to Mr. Biggs; and full information was obtained, that that gentleman had had sent, among other things, an ounce bottle of prussic acid, which had arrived at Leicester; and the prisoner had full opportunity of doing with it what he pleased, and by some accident Mr. Biggs's attention had not been called to it at all.

Now these circumstances were put together at the inquest, and it was also considered what had happened when the prisoner went to inform the parents of the deceased of her death; these circumstances were all laid before the Coroner's jury, but, upon the whole, it did not appear there was enough to affect this individual with the suspicion of the murder, and therefore the Coroner's jury separated. After the Coroner's jury had separated, evidence of a more important nature, which will be laid before you, was discovered; for it then appeared, upon inquiry, that he was likely to be the father of the child which it appears the unfortunate woman was bearing about her at the time of her death. It appeared, in addition to the circumstances of these two persons being frequently together—these two young persons, the apprentice and the maid-servant, had opportunities of indulging in any passion they might have indulged for each other. It appeared that the prisoner had actually, in the course of last summer, boasted that he had had connexion with that young woman, and he gave the

particulars how that connexion was brought about. He stated, that some time after she had been with child he administered oil of savin to her, a medicine that was capable of procuring abortion; that he was in the habit of doing so; that he had frequently done so; that he knew how to dispose of a child by applying something, without the knowledge of the woman or any body else. You will find that he frequently talked upon the subject with those whom he trusted; you will find, up to a late period, he was making inquiries what drug would be effectual for the purpose. The answer was according to truth, I believe, that no drug would specifically produce the effect, because it has been ascertained, that nothing will produce that effect, by way of direct influence upon the parts concerned; but that by general convulsion in an early stage, the effect produced may end in abortion. You will find in one of these conversations upon the subject, that he admitted having had connexion with her, and expressed his fear that she was with child, and professed his belief that the child was prevented coming into the world from something which he had administered. Now these circumstances, connected with what went before, are the material circumstances that are to be laid before you; and you will also consider what the situation of the prisoner was, and what the situation of the female was, on the night before her decease. Whether there is any probability that she committed the act herself? if not, the blame of it must fall upon some one who had the opportunity of doing it. You will find that the prisoner most undoubtedly had that opportunity. He was in the habit of having intercourse with her, and that it is not improbable he found his way into the room where she was reposing.—[The learned Counsel here described the situation of the bed-room.]—Now, gentlemen, this is the whole of the facts, the full particulars of which will be laid before you, and it will be for you to say, when that evidence is given, what confidence you can place in the several witnesses, supposing all these facts are made out to your satisfaction, you will have to say, whether it is impossible, in the first place, that she committed the act herself? and whether it is possible you can believe, in the second place, that this person who had had connexion with her, and who had admitted her being with child by him, probably had taken measures to prevent its being born, particularly as he was frequently making declarations and asking questions upon the subject up to a late period; or whether you believe such an event can have taken place unintentionally, and that he is so brought into suspicion by his own conduct; more particularly coupled with the inconsistent and contradictory language traced to him when the unfortunate

event was discovered. If you shall perceive, from the facts before you, evidence which shall leave no doubt upon your minds that the party is guilty, you will not be looking to any extreme refinement in order to pronounce that opinion, when you shall have formed it on the facts in the case, but you will be bound to exercise a painful duty by declaring the guilt of this young man.

The following witnesses were then called:

Thomas Biggs examined by Mr. Reader.—Is a druggist in High Cross-Street in this town; has been in business six or seven years; also keeps a shop in King-Street, which is a considerable distance from the shop in High Cross-Street; himself and family reside in High Cross-Street; the prisoner is an apprentice of his; lived with him in High Cross-Street; he attended his shop; his business was confined to that; Mr. Freer attended his other shop in King-Street; his family consisted of himself and wife, the apprentice Freeman, the shopman Freer, the deceased, and a little child; the deceased was the only female servant he had; the deceased slept in the garret, Freer and prisoner in an adjoining room, (it was on the same landing as deceased's room); they slept in a room divided by a slight partition further removed from the door; remembers the night of Wednesday, 11th February; had seen the deceased several times during the day; she was in her usual state of cheerfulness, she went about her work as usual; did not observe any thing different in her manner that day from what he had usually seen; went to bed that night about 11 o'clock; prisoner and Freer had gone to bed before; deceased brought the child to his wife at the door of his bed-room; saw her there, she appeared as usual; heard her go up stairs, and concluded she was gone to bed; was awoke in the morning about seven o'clock by the masons and carpenters rapping at the door; the house was undergoing repair; put on his clothes, and went out upon the landing place, and called out "Mary" to the deceased, but received no answer; went and let the work people in; after letting the work people in, went up stairs, and called out "Mary" several times, but received no answer; then went and rapped at the door; there was no reply; did not open the door; came down stairs and told Mrs. Biggs that he had knocked at the door and received no answer; she got up immediately and went up stairs, he followed at the distance of a few yards; Mrs. Biggs went into the deceased's room; does not recollect whether the bed-room door was fastened; Mrs. Biggs cried out; he then went into the room, and saw the deceased; she was lying on her back, with her head a little raised; did not observe the bed-clothes, her head was against the bed-board.

Chief Justice Best.—She was not in that state in which she could lie and sleep.

Examination resumed.—Mrs. Biggs and himself both cried out that Mary was dead; Mrs. Biggs opened the door of the room where the prisoner and Freer slept, and said, "Poor Mary is dead;" Freer got out of bed immediately, and came into the deceased's room; did not observe whether prisoner left his bed, cannot say whether he came into the room; Mrs. Biggs was nearly in a fainting state; himself and Freer assisted in helping her down stairs; after assisting her down stairs, he immediately ran for Mr. Paget, the surgeon; he came in the course of a short time, went into the deceased's room again with Mr. Paget; went for a woman of the name of Catherine Beer, to do the work of the house for Mrs. Biggs; she came after Mr. Paget; she had not come at the time he went into the room with Mr. Paget; remained in the room with Mr. Paget four or five minutes; Mr. Paget came out with him; he fixed a further time for coming, and came about four o'clock in the afternoon; Catherine Beer came about half an hour after Mr. Paget had gone; he had not entered the room between the time of Paget's leaving and Catherine Beer's coming; does not know whether he went into the room with Catherine Beer; believes she went into the room with Mrs. Biggs; afterward he went into the room, and Catherine Beer was there; the bed-clothes were in the same state as they lay in at the time he first left them with Paget; they had not been moved at all; left the bed-clothes exactly in the same state in which he found them. After Catherine Beer and Mrs. Biggs had gone into the room, he was called up stairs; they said they had found a bottle in the bed; went up stairs and saw the bottle; it was lying in the bed on the deceased's right hand; looked at the bottle; part of the label was exposed; did not touch it; knew what it was by the label; it was marked hydrocyanic acid; had not observed any such bottle upon his premises before; did not touch it; saw it afterwards in Mr. Owston's hands about nine o'clock; it was half-full; the bottle would contain an ounce; there was about half an ounce left; he came down stairs with Mr. Owston; went several times afterwards during the day into the room; did not entertain any suspicion of any body at that time; afterwards sent prisoner to inform the friends of the deceased; it was about eight o'clock in the morning before the bottle was found; sent two notes, one to the brother, and one to the parents of the deceased; the brother lived with Mr. Clarke, of Wigston; the parents live at Bruntingthorpe, which is nine miles from Leicester. (Two letters were shewn to witness.) Those are the letters I desired prisoner to deliver; sent no verbal message. The Coroner's in-

quest met the same night; informed the High Constable of the affair about nine o'clock in the morning; the bottle was produced at the Coroner's inquest; inquiries were made as to what prussic acid he had in his house; had had part of a bottle of prussic acid in his house by an invoice dated 11th May last; it was an ounce bottle originally, but half of it had been used; it was kept down in the cellar; the cellar was the place for depositing prussic acid; he was desired on the coroner's inquest to give the names of two or three houses from which he had had prussic acid; he examined his books and invoices for the purpose; did not recollect at that time that he had ordered a bottle of prussic acid in January; his books and invoices were shown to the jury, and they did not observe that prussic acid had been received in January; it was on the Saturday following that he found out that he had received prussic acid in January; upon discovering his mistake, he took the invoices to Mr. Burbidge's, the town-clerk's office, (the invoice of January 3d was handed to the judge,) the invoice brought to his recollection the parcel in which the prussic acid was contained; the parcel came on the 26th of January; there were a great many other things in the package besides the prussic acid. Prisoner unpacked the hamper; it was his department to unpack; it was his duty to examine the packages with the invoice, to see that all the articles were correct. If the things sent did not agree with the invoice, the errors were pointed out; he used to make a mark against the things which were objected to as wrong. The two marks in the margin of the invoice were made by him in consequence of what the prisoner had told him. Does not know what became of the prussic acid that came; does not remember that he saw it. The proper place for depositing the prussic acid was the cellar: there was half a bottle of prussic acid remaining before the invoice of May came, which remained in the same state after deceased's death; the other bottle of prussic acid, which came in January, was not there; looked, but could not find the last bottle of prussic acid any where on the premises. Prisoner had a private drawer in the shop; it was not locked; it was in the counter under the desk; he put any thing there that he pleased. It was not locked; any body had access to it. There was a part of a bottle of prussic acid in the cellar; it had a paper wrapped round it. The other articles included in the invoice of January, which came with the prussic acid, were deposited in the warehouse, and some in the cellar. There were other bottles on the same shelf as the prussic acid, but there was no other phial.

Cross-examined by Mr. Clarke. — The murder was committed within the borough

of Leicester; does not know why the indictment was preferred in the town; has nothing to do with the indictment; do not know who has to do with it; the magistrates' deputy has looked up the witnesses; Mr. Macanley is the magistrates' deputy; he has looked after the witnesses, he is in the town-clerk's office; witness's brother has assisted them occasionally; do not employ any attorney; knows Weston; when he was considering about dismissing the prisoner, advised with Mr. Weston; when applied to by the prisoner's father, referred him to Weston as his attorney; do not know that Weston is the attorney for getting up the witnesses for the prosecution; believes Weston has busied himself a little in looking after evidence; after the inquest wanted prisoner to leave; the inquest found nothing against him; prisoner refused to leave; was applied to by prisoner's father's attorney to keep him; offered to pay the father back a portion of the premium, if the prisoner would go away. Was the first person who got up in the morning; it was about seven o'clock; called the deceased to get up, but no answer was given; went up stairs; the door of the deceased's chamber was closed; believes it was latched; cannot tell whether it was latched or not. When Mrs. Biggs went up stairs, was a few yards behind her; he left the door as he found it, latched; thinks the door was latched, as it did not give to the hand when he rapped; the door makes no more noise than others in opening; it makes no particular noise in opening; it was an old door, if it was opened in the ordinary way, it could not be heard in his bedroom; does not think he could have heard the door open in his bedroom; should not have heard it if he had been awake. The door into the room in which Freer sleeps does not make any noise in opening, no particular noise; does not make noise enough to be heard in witness's bedroom. Out of the room where Freer sleeps there is a door into the room where prisoner slept; there was a door from the landing into Freer's room, and a door into the deceased's room; the door into Freer's room was rather hard to close. The room where the prisoner slept is in the same state as when the thing happened, with the exception of the partition, which had been taken down; the partition has been taken down, and the door is gone; do not know when it was done; the carpenter has been at work a long time; did not know it would be material that the place should remain in the same state as when the thing happened; did not know it till afterwards, cannot tell when it was done, it might be ten days after deceased's death; it was about the 22d, 23d, or the 24th of February, but cannot speak to the day. No alteration was made to the door leading into Freer's

room; is sure there was no alteration; it was not made to open and shut easier; it has not been done, he gave orders to the contrary; it is just the same as it was at the time; the other door is gone. No alteration has been made to the door into the girl's bedroom. Directly, when he knew of deceased's death he went for Mr. Paget. Nothing had been discovered in the bed-room at the time Mr. Paget was sent for. He sent the prisoner about 8 o'clock to Bruntingthorp. The bottle was found by Catherine Beer, about half an hour after he had been sent. If it had been put into the bed after he first saw the bed, it could not have been done by the prisoner, as he was gone; the bottle could not have been put into the bed by him; himself and Mrs. Biggs were the only persons left in the house; Catherine Beer came a few minutes before the prisoner went away; is sure she came a few minutes before prisoner went away. Mr. Paget came about twenty minutes past seven, or half-past; Catherine Beer came about half an hour after Mr. Paget; staid in the room about four or five minutes with Mr. Paget; cannot tell whether prisoner had his breakfast before he went away; told him to make as much haste as he could; prisoner rode a horse kept by witness and his brother; was examined by the Coroner as to whether he had any prussic acid in his house? at that time he believed he had only the part which was in a bottle in the cellar; told the jury on Friday the 20th that there had been another bottle sent in January; the jury were informed of it by Mr. Macauley when they met on the Friday evening; told the town-clerk that it had been discovered, on the Saturday morning between eight and nine o'clock; was told by the jury to give an account of his correspondents in London; the jury requested him to write to his correspondents; the jury did not say they would write; they did not say that the High Constable should be sent up to London to make inquiries; was not sent one day for the purpose of looking at his invoices, for the purpose of bringing them—was merely directed to go and ascertain the name of the house from which he had the last goods; does not know for what purpose he was directed to ascertain the names of his correspondents; will swear that; had not been told the jury would make inquiries of his correspondents, or whether any letter had been sent to them. The parcel arrived on the 26th of January that the invoice belonged to; was requested by the jury to look at his invoices of the 12th February.

Chief Justice Best.—Looked over his invoices on the Saturday morning, but did not perceive the prussic acid—had overlooked it.

Examination resumed.—The bill of parcels, containing the prussic acid, came on the 26th January; had totally forgotten that it

contained prussic acid; don't remember looking at the invoice for the purpose of seeing whether prussic acid was in it; did not tell the jury, after examining the invoice, that there was no prussic acid in it; will swear he did not; produced the bill of parcels before the jury; did not discover there was any prussic acid in the invoice till Saturday morning; was desired by the jury on the 12th to look at the bills of parcels, but did not discover it till the Saturday; saw all the bills of parcels on the 12th; saw the bill of parcels on the Friday night, and told the town-clerk of it on the Saturday morning; had looked at it and discovered it on the Saturday morning; did not observe it on the Thursday; looked at it but did not find it on that night; was requested by the jury to see whether it contained prussic acid; did not see it; read it over but did not see it; was desired by the jury on the Thursday night to go and look at his papers, to ascertain whether any deadly medicine had been sent; read the paper, but did not discover there was any prussic acid in it; shewed the invoice to the Coroner and the jury on the Thursday night; will swear he produced it, and shewed it to the jury; it was laid on the table before them; they read the paper—he assisted them in reading it—but did not discover the prussic acid; will swear he produced it on the 12th, and that the jury and witness read it over together; he made the marks on the invoice at the time the goods came in; cannot tell whether it was on the 26th or 27th. The invoice was produced before the third night; it was produced on the third night; was asked by the jury on the third night, why he had not discovered it before? he might have said, the reason why it had not been produced before was, that in his hurry and agitation he had overlooked it; might have stated on the third night that he had missed the prussic acid in the invoice—he might have said so, but if he did he don't recollect; was so busy with his workmen, that he could not recollect whether he had received the prussic acid. Wrote a note at the bottom of the paper the day the goods arrived; wrote about some of the charges for the things in the bill, that they could be got at other places at a less price; had not had prussic acid very often; gave the order for the prussic acid on the 3d January, and expected it to come; ordered it among other things; paid no attention to it; did not think any thing of the prussic acid in particular; went over to Loughborough on the Thursday, the second day of the inquest; went to Loughborough to inquire of the different chemists whether they had sold prussic acid to any individual? did not ask whether any thing had been sold to his apprentice; inquiries had been made at Leicester; his reason for going to Loughborough was,

that it might have been sold at some of the adjacent towns; it was twelve or fourteen days before he went to Loughborough to inquire whether any had been sold; don't know why he went to Loughborough, except that it was a large place and not far from Leicester; did not go to Hinckley, or any where else; when he assisted to unpack goods, he compared them with the invoice; at the time these goods were unpacked, he was looking after his workmen, and did not help to unpack; did not inquire what had become of them; ordered the prisoner to unpack them, and put the things in their proper places; the proper place for the prussic acid was down stairs; the place for the other things was in the warehouse; the prussic acid was generally put in a kind of recess in the wall; it was an open place, where other bottles stood; the other bottles contained fish sauces and bleaching liquids, among which the prussic acid was put; that was the place where it should have been put; does not write poison upon it; gave the order for it on the 3d of January; had half an ounce of prussic acid at the time the order was given; don't know when that came; the invoice is dated May 2d, 1838; between May and January had sold half the bottle; ordered another bottle to come in; ordered it because sometimes surgeons have an ounce at a time; had an order from a Mr. — for an ounce at one time; has not had many orders, since he has been in business, for an ounce at a time. Did not always compare the goods which came in with the invoice; when he unpacked them himself he did; has never said he always compared the goods with the invoice—that he did it himself and never trusted to any one; will swear he did not say so; knows Mrs. Higham; did not tell her that he always compared the goods with the invoice, or the invoice with the order book himself, and never trusted any one—will swear he never said any thing to that effect; don't know that he ever had a conversation on the subject with her; her husband is a carpenter; she has given him orders, but he has not done any business for her for a long time; has not had an order from her for about three months; never compared the goods with the invoice, unless he assisted in the unpacking; has never said he always left it to his apprentice, Freeman; when he has been out Freeman has unpacked sometimes; will swear he never said before the jury that he never unpacked goods himself, but always left it to Freeman; was examined by the magistrate, after the jury had found nothing against the youth. Did not swear before the magistrate who examined him that he always left it to Freeman to compare the goods with the invoice; that he left it to him altogether. Did not discover that the deceased was pregnant till

the morning she was found dead; will swear he said before the magistrate that he had no suspicion the girl was pregnant. Wanted prisoner to leave after the verdict had been given. Found something in the girl's room in a box, when he (the witness) went there with the brother of the deceased; it was in the course of the morning of her death he found one or two bottles, and some boxes containing pills; they were all in a paper together. The girl's brother and he looked at them together; one bottle contained tincture of steel, the other contained a wash for the face; it was a clear liquid like water; he tasted it, and found it was compounded of corrosive sublimate in a large quantity of water. Did not make it up for her; did not analyze it; merely tasted it, and concluded it was something to make her face fair.

[To be concluded in our next.]

REPORTS OF CASES OCCURRING AT PUBLIC INSTITUTIONS.

LONDON HOSPITAL.

CASE I.—*Spurious Aneurism of the Anterior Tibial Artery.*

W. HART, æt. 55, was admitted into the London Hospital, under the care of Mr. Scott, on Sunday evening, May 15, with a spurious aneurism of the anterior tibial artery. There was a pulsating tumor at the lower and fore part of the leg, extending round from one malleolus to the other, and about five inches from the upper to the lower part; in the centre of this was a wound, about three-quarters of an inch long; there was no hæmorrhage at the time of his admission.

He gave the following account: that the Friday week previously he accidentally struck himself with the point of a reaping-sickle; that the wound was not large, but very deep, and bled most profusely for some time, till his wife bound it up very tight, when the bleeding stopped, and did not return for five days, when he took off the bandage, and found a large swelling, from which some blood was oozing; that he then applied a bread and water poultice; that on Friday (a week from the accident) it again bled most profusely, but stopped of its own accord till the Sunday morning, when it again commenced, and continued for some time; pressure was applied to the artery in the ham, and he was sent up to London; his pulse was quick and extremely irritable; his tongue dry and much coated; his skin hot, and his bowels had not been relieved for two days.

A tourniquet having been placed on his

Mr. Hamilton introduced a director into the wound, and dilated it upwards and downwards, to the extent of three inches; about three or four ounces of coagulated blood were pressed out, but some little time elapsed before the wound of the artery could be detected, owing to the difficulty of entirely removing the coagulum, which adhered so firmly to the surrounding parts. The tourniquet being loosened, the blood was found to flow from a small opening in the anterior tibial artery, just where it runs in front of the tibia; a ligature was placed on the vessel above and below the wound; the part was dressed lightly, and cold lotion applied on the whole leg.

Rx Hydrarg. Submur. gr. iij.

Opii, gr. ij. statim sumend. et Ol. Ricini, ʒss. mane.

Immediately on removing the tourniquet, after the vessel was tied, the pulsation could be distinctly felt in the lower portion of the anterior tibial artery, as it passes over the tarsus.

16th.—Passed a restless night, but is now easier; the leg slightly inflamed; pulse not so quick; tongue cleaner; bowels have been freely relieved.

Mist. Salinae Antim. 6tis horis.

17th.—Going on well; the leg less inflamed. From this time every thing went on most favourably; the constitutional irritation quickly subsided; the wound granulated; and the ligatures came away on the 31st, the sixteenth day from the operation, and the wound is now healing rapidly.

June 12th.—Wound quite healed, and the man was discharged cured.

CASE II.—Strangulated Inguinal Hernia.

July 20th, 10 p.m.—Mary Fry, æt. 50, admitted into the London Hospital this afternoon. She states that she has been the subject of hernia fourteen or fifteen years; that the rupture came down yesterday, but was returned by a surgeon, and that a few days previously, she was labouring under diarrhoea, and that the rupture again came down to-day, and since which she has had two small motions. Upon examination, there is perceptible to the touch, but not to the eye, a small firm tumor in the situation of the right inguinal canal, covered with fat, which glides over it; pressure upon the tumor gives pain, and though it moves under it, it will not return into the abdomen, which is also painful; the pain is increased upon pressure, but there is no tension; constant nausea and frequent vomiting; the matter vomited, however, is small in quantity, and composed chiefly of mucus, tinged with bile; no hiccup; countenance anxious; pulse small and feeble; skin cold; tongue clean and moist. All manual attempts to reduce the hernia failing, she was advised to sub-

mit to the operation; and consenting to do so, it was performed by Mr. Hamilton. The incision was made in the usual way, through the integuments covering the tumor; then through the fat and superficial fascia; and, lastly, through the tendon of the external oblique, by which the sac of the hernia was exposed, which was very red, and greatly resembled the intestine; by pinching it, however, between the finger and thumb, the gut could be distinctly felt underneath. The sac was then cautiously opened and slit up, and a knuckle, rather large, of gorged intestine (a portion of the ileum) exposed, lying in the inguinal canal; a small quantity of fluid, tinged with blood, escaped upon opening the sac. The stricture, which was very tight, and seated at the internal ring, divided; and the gut, after some little difficulty, the woman fortunately being faint at the time, returned. The pain immediately ceased; the woman was relieved; the edges of the wound were brought together in the usual way, and the patient carried to bed.

21st, 7 a.m.—Slept well; no motion; but little pain in the abdomen; no tension.

Hirudines xx. c. fotu. Mist. Cathar. Hydr. Submur. gr. j. ter die.

25th.—Pain of abdomen entirely gone; bowels freely opened; wound quite healed, and not one untoward symptom.

30th.—Went out well.

CASE III.—Poison by Nitric Acid.

May 18th, 1831.—A woman was brought into the London Hospital, about one p.m. yesterday, having, a short time previously, taken half-a-cupful of strong nitric acid. She suffered greatly from violent pain at the epigastrium, heat in the mouth, and vomiting. Magnesia was administered, which it was difficult to get down; leeches were applied to the epigastrium, but she died at seven a.m. this day.

Dissection.—Integuments of lips quite dry and brown, like the skin after a blister or burn; teeth beautifully white, part of the enamel destroyed; tongue shrivelled and white; pharynx very much inflamed, swelled and red; larynx also much inflamed and cedematous; mucous membrane of trachea and bronchi preternaturally vascular; lungs also congested, and some frothy fluid issued from them when cut into. Pericardium exceedingly vascular; substance of heart flabby, its cavities gorged with dark venous blood; a small quantity of serum in the pericardium, and about half a pint, tinged with blood, in each side of the thorax.

Peritoneum lining the parietes of the abdomen, covering the intestines and liver, preternaturally vascular; the latter coated with coagulable lymph of recent formation; some serum also in the abdomen. Liver of a pale ochre-colour, and somewhat large;

mucous membrane of œsophagus and stomach much altered; the former, in parts quite black and corroded, the latter of a greenish-white colour, containing a semi-fluid green substance and converted into a pulp, which was easily scraped off with a knife. The mucous membrane and intestines more vascular than natural.

CASE IV.—Abdominal Aortic Aneurism.

June 13th, 1831.—John Gordon, æt. 45, has been in the hospital some time, exceedingly feeble and emaciated. States that he overstrained himself in lifting corn, two years and a half ago, and immediately felt a sudden snap in the back, which he considered as lumbago; he felt faint afterwards, and was obliged to desist from work, nor has he been able to do much since. He was cupped, and the usual remedies for rheumatism tried in vain. He was twice in the hospital for rheumatism. About twenty-seven weeks ago he felt a violent beating in the loins, extending round to the abdomen, attended with great heat, which seemed (to use his own expression) "to fly all over him;" with pains in his legs, and frequent fainting fits. The beating has continued ever since, sometimes more strongly than at others; and about twenty-three weeks ago he first perceived a swelling to the left side of the spine, which pulsated, and which has gradually increased. There is now a considerable tumor, of firm consistence, extending from the spine at the seventh dorsal vertebra round the abdomen, nearly as far as the anterior superior spine of the ilium on the left side. Its surface is rather irregular, and it feels to the man very hot. The skin is red and distended, its veins prominent and tortuous, and it has a decided pulsation; upon tapping it there is not experienced any fluctuation. He has pain down the right as well as the left leg, as he is obliged constantly to lie upon the opposite side to the tumor. The left leg has wasted, and drags after him when he attempts to walk. Urine free, and rather copious; bowels generally costive; no rest at night without opiates; no cough, or pulsation in the chest; headache at times; countenance sallow; pulse small, regular, 90; tongue clean and moist; skin natural; breathing free; no appetite. Upon pressing one hand on the loins and the other on the front of the abdomen, relief is obtained and less beating felt.

July 11th.—Tumor larger, less pulsatile, more tender, especially on turning; skin even more tense, red, and inflamed; countenance very pale and exsanguine; body much emaciated; skin bathed in perspiration; legs slightly œdematous.

19th.—Was seized with a severe diarrhoea, by which he was completely exhausted, and he died yesterday.

Dissection.—Heart and lungs healthy. Internal coat of the aorta, from its arch down-

wards, pale, but preternaturally thick, from steatomatous deposit underneath it, was thicker in some parts than in others. Upon tracing the aorta into the abdomen it became more diseased towards the celiac axis, the vessels coming from thence having the steatomatous deposit in large quantity, and preternaturally and irregularly dilated, forming several small aneurisms. The principal aneurism, however, was of enormous size, filled up the left side of the spine, extended a little to the right side of it, had by its pressure produced absorption of many of the bodies of the vertebrae; it was filled with coagulable blood arranged in concentric layers, and communicated with the posterior part of the aorta, opposite to the celiac artery, by an opening nearly twice as large as a crown piece. The left kidney, ureter, and descending colon, were firmly adherent to the tumor laterally; the aorta was contracted on its anterior, but much contracted, and even here diseased. The tumor extended from the diaphragm to the left side of the pelvis; the left anterior crural nerve was thrown very much backward into the pelvis, and outward from the groin, and was completely adherent to the tumor. The iliac arteries also were contracted and displaced, the inferior cava very much flattened and dilated, and the mucous membrane of the large intestines preternaturally vascular. The other abdominal viscera healthy.

MIDDLESEX HOSPITAL.

An assistant-surgeon has been appointed to this hospital. The contest lay between Mr. Arnott and Mr. Perry, and we understand that the canvassing was carried on very briskly to the last moment. At the close of the poll the result was as follows:—

Mr. Arnott 287

Mr. Perry 132

BOOKS RECEIVED FOR REVIEW.

Elements of Practical Midwifery; or Companion to the Lying-in Room. By Charles Waller, Consulting Accoucheur to the London and Southwark Midwifery Institution, and Lecturer on Midwifery and the Diseases of Women and Children. Second Edition, with Additions.

A Singular Case of Extensive Thickening of the Abdominal Integuments. Dedicated to John Abernethy, Esq. F.R.S. late President of the Royal College of Surgeons in London. By Patrick Darbey, Surgeon; Member of the Royal College of Surgeons in London; Licentiate in Pharmacy, *Materia Medica*, and Pharmaceutical Chemistry, of Dublin; and in Midwifery, of the Lying-in Hospital. Second Edition.

W. WILSON, Printer, 57, Skinner-Street, London.

THE
LONDON MEDICAL GAZETTE,

BEING A
WEEKLY JOURNAL

OF
Medicine and the Collateral Sciences.

SATURDAY, SEPTEMBER 17, 1831.

DR. PROUT'S REJOINDER TO DR.
W. PHILIP'S "REPLY."

*To the Editor of the London Medical
Gazette.*

SIR,

I OBSERVE in your last number that Dr. W. Philip has admitted that, at the conversation alluded to, "he expressed himself sorry that he had mistaken the meaning in which I had used the term metaphysics." Now this is principally what I meant to imply, and all indeed that I wished; for, this mistake being admitted, a very large proportion of what the Doctor has brought forward both in the last and the present communication becomes irrelevant. I can assure the Doctor that had it not been for this accidental meeting (which, as far as I was concerned, ended amicably) he would have had much more reason to be offended than he has at present; for I had "dipped my pen in gall, and spared him not." What particularly annoyed me was, not so much the uncalled-for attack from a person with whom I considered myself on friendly terms, as the very offensive manner in which he contrived to pin to my back the "wearisome thrice-told tale" of his own discoveries, and thus to exhibit me in the ridiculous light of his *homme affiché*.

With respect to the term metaphysics, which seems to have been used in a variety of senses by different authors, (even metaphorically, if I mistake not, for any thing abstruse,) I shall be brief and final. The definition of the word, as given in my last communication, was taken from the only English dictionary

that happened to be at hand, and represented, therefore, I presume, its general meaning. Now this meaning appears to me to be of such a comprehensive character, as fully to authorise the sense in which it was used in these lectures; and indeed so satisfied am I of this, that were I to engage in a work on Physiology to-morrow, I should not hesitate, if it otherwise suited my purpose, to class under this general head (appropriately subdivided, of course) every thing belonging to every kind and degree of those beings, agents, principles, or whatever else we may choose to call them, existing in organized beings, and which peculiarly distinguish them from common matter.

As Dr. Philip meditates another attack, which seems intended to demolish me and my chemistry altogether, I shall of course reserve all my powers for this awful occasion: but if his observations consist, like many of his last, of mere verbal refinements, or inferences from such, he will probably find my answer next week still less agreeable than my former letter. On the other hand, all objections to substantial statements or facts brought forward in the course of these lectures, I shall readily attend to, and if the Doctor can shew that I am wrong, as the truth, and the truth alone, is my object, I shall at once acknowledge my error.

I have always been an admirer of the Doctor's industry and perseverance, and wish that others of our profession would follow his laudable example in these respects. From the first I have felt great interest in his investigations, and as far as I could understand them, and they appeared to be well founded, have immediately adopted them, and

shall continue to do so. Now what I wish in return is, that the Doctor will do the same by me, and condescend to understand a little of my chemistry. Whatever he may think of the matter, I can assure him that it will furnish him with a vast deal of curious and important information, which he will not be the worse for, and which he cannot hope to procure from any other source. Indeed, if he wishes his observations to have any weight with the world, he *must* follow this course, or otherwise shew that he knows a *little* at least of the subject on which he pretends to give an opinion.

In conclusion, I beg to remind the Doctor, and indeed all my readers, that these lectures, *the subject of criticism*, do not constitute a finished treatise, professing to be precise and perfect, but merely a brief and general sketch; nay, as printed, they do not even constitute an *entire* sketch, but only the broken outline of one—"the shadow, of a shade*." Under these circumstances they must be necessarily very imperfect, and I can readily suppose that they appear much more imperfect to a stranger than to myself, on account of the absence of illustrations, &c. which are familiar to me, but, of course, unknown to him. Thus, for example, the circumstance alluded to by Dr. Philip in his last communication, that negroes are said to grow fat during the sugar harvest, was particularly noticed and explained in the lectures themselves, as many of my hearers no doubt will remember.

In the present number I find myself involved in another wordy dispute with Dr. Robertson. Fortunately for me, however, Dr. Philip is stated to be over head and ears in the same scrape; I shall, therefore, beg leave to cut the affair, and leave the two metaphysicians to settle the matter between them.

How refreshing to turn from this war of words to the valuable practical essay of Dr. Stevens, in your same number; an essay which, in spite of some

imperfections, seems to me to contain the germs of discoveries of the last importance to mankind. I notice the subject from the Doctor's statement that the acid found in the stomach on these occasions is the muriatic acid, and I have little doubt that it is so occasionally, in part at least. I have elsewhere, however, advanced the notion that the acid may be the acetic, and I expect it will be frequently found to be this or some other acid connected with the saccharine radical. The argument mentioned by Dr. S., that the matter vomited has not a sour smell, can scarcely be deemed conclusive, as the mercurialized acetic acid (lactic acid) usually met with in the stomach, is not volatile at ordinary temperatures, and consequently has little smell.

WM. PROUT.

Sackville Street,
Sept. 12, 1841.

SOME OBSERVATIONS ON
AN ABSTRACT OF
DR. PROUT'S GULSTONIAN LEC-
TURES,

*Delivered by him at the Royal College of
Physicians.*

By A. P. W. PHILIP, M.D. F.R.S. L. & E.

THE lectures of Dr. Prout, from the acknowledged talents and industry of their author, and the importance of their subject, have attracted in no common degree the attention of his medical brethren. Notwithstanding this favourable prepossession, it has been alleged by some, that the reader rises from their perusal without a clear conception of their author's meaning, and consequently without that conviction which sound premises and an able exposition necessarily produce. Such a result the author and the reader are very naturally inclined to ascribe to different causes.

Of the reader's intelligence and information we have no means of judging, nor are such means necessary. The author has laid his case before us, and if he is acquitted, the reader is condemned. We have to consider, then, how far Dr. Prout's premises are sound, his deductions legitimate, and his language correct.

As the first essential in all discussions

* Lest this expression should be understood as applying to our reports, we beg to say that the circumstances render it impossible that Dr. Prout should allude to the manner in which the portion of his lectures which did appear was given in this Journal.—ED. GAZ.

is that the parties should understand each other, I shall in the first place call the reader's attention to the language of Dr. Prout. On this head I have already had occasion to make some observations.

We have seen him using the term metaphysics in a sense not authorized by the usage of the language in which he writes, without defining the meaning he affixes to it; and called upon to define that meaning, he gives a definition which does not well correspond with the use he has made of the term. In his reply to my former observations, we have seen him using words as synonymous whose meanings have nothing in common; and including under the term mechanics, phenomena of the nervous and muscular powers.

The composition and use of a term introduced by Dr. Prout, and which may be regarded as a kind of introduction to the physiological part of his work, appear to me particularly objectionable. Such I should have considered the term merorganization, had he employed it only as the expression of a chemical fact, because it implies a knowledge of different degrees of organization, of which I can see no proof either in Dr. Prout's paper, or his lectures; but when employed for the physiological purpose to which he attempts to apply it, it involves him in considerable difficulties, without, as far as I can judge, in any degree answering the purpose he has in view.

The following account of the meaning of this term, and of his reasons for introducing it, is taken from his paper "On the Ultimate Composition of Simple Alimentary Substances," &c. in the Philosophical Transactions for 1827.

"It has been known from the very infancy of chemistry, that all organized bodies, besides the elements of which they are essentially composed, contain minute quantities of different foreign bodies, such as the earthy and alkaline salts, iron, &c. These have been usually considered as mere mechanical mixtures accidentally present; but I can by no means subscribe to this opinion. Indeed, much attention to this subject for many years past has satisfied me, that they perform the most important functions; in short, that organization cannot take place without them. This point will be more fully investigated hereafter; at present it is sufficient merely to observe, that many of those remarkable changes which crystallized bodies un-

dergo on becoming organized, are more apparent than real—that is to say, their chemical composition frequently remains essentially the same; and the only points of difference which can be traced, is the presence of a little more or less water, or the intimate mixture of a minute portion of some foreign fixed body. There is no term at present employed which expresses this condition of bodies; and hence, to avoid circumlocution, I have provisionally adopted the term merorganization (*meros, pars vel partim*), meaning to imply by it, that bodies on passing into this state become partly, or to a certain extent, organized."

To Dr. Prout's inference, that the presence of these foreign bodies, or a little more or less water, is essential to the change which he calls merorganization, there can be no objection, provided it rests on a sufficiently extensive and varied series of experiments; but this fact, if such it should prove, throws no light on the process by which the organic agent operated, or the nature of the connexion which subsists between the slight chemical change in the composition of the body, and the vast change in its sensible qualities; nor does Dr. Prout maintain that it has such effects.

This subject is strikingly illustrated by the very curious and important experiments of Mr. Herschel, to which Dr. Prout refers; and the more so, as the identity of the nervous and galvanic powers appears a necessary inference, from the facts stated in my first communication.

There are circumstances, however, which seem to suggest more than a doubt of the propriety with which Dr. Prout applies the term merorganization to any of the processes of the more perfect living animal.

Words which unfrequently occur in common conversation are often, when they do occur, employed very indefinitely. Thus the word organization is sometimes employed to express the functions, as well as the composition, of living parts; and sometimes their composition only. In the latter sense we apply it to dead as well as to living animal and vegetable substances. Now it is evidently in the latter of these senses alone that Dr. Prout uses it, because he applies it to starch, &c.

In this sense of the word the more perfect animals, I conceive, have no or-

ganizing power; they can exist only on matter already organized; and if some of the lower species of animals possess any degree of this power, which seems to be the case, we only see in this one of the instances in which they approach the vegetable, as we see in vegetable life plants, the mushroom tribe, possessed of no organizing power, and therefore, like the more perfect animals, nourished only by matter already organized.

If the more perfect animal were capable of organizing its food, like the vegetable, or, as it would appear, some of the more imperfect animals, it could live on air and water alone; for by the vegetable these are converted into the food of the more perfect animals. If Dr. Prout means to attempt the herculean task of tracing the steps by which unorganized becomes organized matter, it is to the vegetable, or, at most, the lower classes of animals, that he must look for the field of his labours; for it is in them alone that this change is effected.

Let the reader, keeping these facts in view, compare the observations of Dr. Prout, which have been quoted from the *Philosophical Transactions*, with the paragraph marked 2, in the thirteenth page of his lectures, and endeavour to reconcile these passages with each other, and both with the facts just stated. Dr. Prout observes, in the passage just quoted from his paper, that of such consequence are the "minute quantities of foreign bodies," "that organization cannot take place without them;" and again, in the fourth page of his lectures, "that organization cannot exist without them." They, therefore, are received into the stomach with the organized food, on which alone the animal can live. Yet in the passage of his lectures just referred to, we find the following sentence:—"From long attention to the subject I am satisfied that the merorganizing principles are chiefly derived from the living animal itself, at least the more essential ones, and that they are contained in those products of secretion furnished by the stomach and other organs." If the stomach merorganizes the food, it must have a disorganizing power, because the food is wholly organized when it enters it. It will be admitted, that no organization can be more perfect than that of the muscular fibre. Dr. Prout's attempt to remove this difficulty rests on too narrow a basis, and were it correct, would

not warrant his use of the term *merorganization*.

Were there room in such a communication as the present to pursue this part of the subject, we should find similar difficulties in other passages, particularly in those relating to crystallization; but I must hasten to the more important parts of my task, and shall close this part of it by the following general observation. In the chemical department of the work Dr. Prout appears at home. His style is simple and correct, and his observations clear; but in proportion as it becomes physiological, it becomes obscure and perplexed. The author talks less of what has actually been done than of what he conceives will in future be done, and dwells on expectations which I shall endeavour to show can never, in the nature of things, be realized.

I am now to enter on the question of issue between Dr. Prout and myself, namely, how far chemistry is applicable to explain the phenomena of the living animal, and assist us in the cure of its diseases.

In the eighth page of his lectures Dr. Prout observes, "The physiologist, in order to obtain the utmost advantages that chemistry is capable of contributing, must turn chemist himself, and carry on his researches in connexion with the phenomena of life, of which he must never lose sight for a moment." But the circumstance of the same person studying both sciences will not form these sciences into one. They will equally remain distinct sciences. In our language we may disregard the great landmarks of nature; but there are her landmarks notwithstanding.

Chemistry, and the science of the vital functions, are of so different a nature, that if they be pursued with ardour, and without this nothing can be done in such subjects, the one will tend constantly to abstract the mind from, and perhaps in some degree to unfit it for, the other; so that the one or the other will more or less absorb the inquirer, according as his peculiar turn of mind or accident inclines him.

In this subject, as in almost all others which are open to the public, we find the most common view of it the most correct. Physiology and chemistry will always, I believe, be regarded as distinct sciences. They cannot, as Dr. Prout supposes, so coalesce as to form parts of a whole, because there is a chasm be-

tween them which no labour will ever enable us to fill up. I cannot, therefore, agree with him that the physiologist should himself become chemist, farther than is necessary to enable him to watch the labours of the chemist, and select from the results obtained by him, such as suit his purpose. To be thoroughly acquainted with the vast science of modern chemistry, and keep pace with the rapid discoveries which every day add to its utility and importance, he must make it his chief business, to the neglect of what more particularly belongs to his own department.

As civilization increases, the sciences as well as the arts extend, and the necessity and advantages of the division of labour increase in the same proportion. In times when we find it necessary to create so many artificial divisions of labour, it would surely be unwise to attempt to destroy those which nature herself has established, and which have consequently at all times existed. Dr. Prout admits the operation of what he calls the organic agent in the functions of the living animal. What would he say to the chemist who should admit of such a principle in his reasonings; and what would he say to the physiologist who should exclude it in his? Now before he can speak of physiology and chemistry coalescing and forming a whole, he must either be the chemist who admits or the physiologist who excludes this principle.

The same prepossession in favour of chemistry which induces Dr. Prout to propose that the physiologist should become chemist, produces an error of greater consequence; which runs through the whole of his reasoning. In speaking of the phenomena of animal life, he keeps only in view their chemical department. Now, although chemistry may unfold the changes which take place in individual processes, and thus greatly aid the physiologist, farther than this, as far as I am capable of judging, it is powerless in investigating the laws of the vital functions, and ever will remain so.

Let us take the stomach, of which Dr. Prout says so much, as the subject of our illustration. He may ascertain what chemical changes are effected in it, but can he, by any chemical investigation, tell us the food which is most grateful to its nerves, and consequently best fitted to excite their action, or that which best supports the muscular ac-

tion of the stomach itself? For on these, as much as on the chemical properties of the food itself, its digestible quality depends: oily articles are known to be of difficult digestion, yet the fat of bacon toasted is, under certain circumstances, more digestible than the lean of mutton or venison, the most digestible of all food.

We shall suppose that Dr. Prout has, in any particular case, determined every chemical change the stomach effects on the fluids of the body, as well as on the food; he will still be incapable of telling us what food, in any particular instance, is most digestible; because this often depends on circumstances on which chemistry can throw no light. In the introduction to his lectures he justly says, indeed, that in applying chemistry to physiology it is necessary to take into the account the living as well as the chemical powers engaged; but when he comes to make the application, it is still either the chemical powers alone which he keeps in view, or, if the living powers be taken into the account, it is only for the purpose of considering what chemical change is effected by them.

We have not only to consider what food is most soluble in the gastric juice, but what food is most capable of exciting a healthy secretion of this juice; and although the gastric juice be healthy, and consequently capable of effecting the due chemical changes on the food, the function of the stomach may, notwithstanding, be wholly deranged, and no proper chyme transmitted to the duodenum. If that portion of the food which has undergone the action of the gastric juice be not duly separated and kept apart from that which has not, and in this separated state duly carried forward towards the intestine—if an error in any one of these functions take place, the office of the stomach is just as certainly deranged as if the chemical part of the process had failed. Yet, in Dr. Prout's observations on the office of the stomach, the chemical part of it alone is referred to, as if it were in this alone it consisted.

He professes to give us a summary view of that part of the process of digestion which is performed by the stomach, while his attention is wholly confined to the chemical changes which take place in the food*: neither referring to the thousand causes which influence

the secretion and consequently the qualities of the solvent, nor to the circumstances which influence the position and motions of the mass formed by the union of the solvent and the food; each of them as essential as that union itself. One might as well attempt to explain the nature of the circulation by detailing the chemical changes which take place in the blood.

Prepared as the reader must now be for Dr. Prout's partiality to his favourite science, he can hardly be prepared for the following prediction in the ninth page of his lectures. "I will venture to predict that what the knowledge of anatomy at present is to the surgeon, in conducting his operations, so will chemistry be to the physician, in directing him generally what to do and what to shun." Does not the surgeon guide his knife solely by a knowledge of anatomy—a knowledge of the parts, and their relative position? Will it be asserted that, let our knowledge of chemistry be as perfect as we can suppose it, the physician could regulate his practice on chemical principles alone? Could chemistry give him any knowledge of even the simplest principles of medical treatment? Could it tell him, for example, that a copious discharge from the bowels will relieve the turgid vessels of the brain, or that that by the skin will allay the symptoms of fever? But Dr. Prout may say it will assist in his choice of the means by which these effects are produced. Undoubtedly it will. Here chemistry is in its proper place: but of what use would the chemical knowledge here be, if the laws peculiar to the animal economy had not, in the first instance, supplied the indication of cure?

On the other hand, let us suppose for a moment that the nature of the animal system is in all respects such as would suit the views of Dr. Prout; that chemistry is to the physician all that anatomy is to the operating surgeon; that all the functions are of a chemical nature, and consequently that all diseases arise from some error in the chemical composition of the whole system, or some part of it; for all this is necessary, in order that chemistry should be to the physician what anatomy is to the surgeon. I say, on the supposition that all this is the case, what opportunity has the chemist of ascertaining the numberless chemical changes which take place in disease? Can he operate on the internal organs and their juices as on an animal or vegetable product,

separated from the organic body which produced it, and wholly and conveniently subjected to his art?

But let us examine more particularly the application of Dr. Prout's doctrines to explain the nature and regulate the treatment of disease.

Here, as in his view of the healthy state of the body, he forgets that the chemical changes which take place in it are but the subordinate parts of its various functions. If the physician can maintain the due action of the living solids, the proper chemical changes necessarily follow, whether he be acquainted with them or not; and although a knowledge of these changes may now and then suggest a remedy, the great source of practical knowledge is the effect of our means on the vital functions themselves; and after all that the chemist can do, to this test must his suggestions be subjected before their value can or ought to be admitted by the physician. It appears, from what was said in my last communication, how fallacious mere chemical inferences respecting the functions of the living animal may be.

One of the greatest errors, as far as I am capable of judging, in Dr. Prout's pathology, is, that his principles lead him chiefly to look to the state of the fluids; whereas we have reason to believe that, in most instances, the changes in them are merely the consequence of some fault in the action of the vital organs on which their state generally depends. Could we correct the fault of those organs, in what Dr. Prout considers the saccharine, oleaginosis, and albuminous diseases, the fluids would quickly be restored to the healthy state, from which they would as quickly again deviate on a return of the morbid action of the organs.

The tendency of his observations is to bring us back to the humoral pathology; the subversion of which, due chiefly to the labours of Boerhaave, Hoffman, and Cullen, must be regarded as the greatest improvement of modern medicine. His humoral pathology, indeed, would be very different from its predecessor, but, applied in the way he attempts, must necessarily lead to many of its worst evils. Whatever be the source of disease, to the state of the living solids we must look for the remedy: if their condition be right, that of the fluids will not long be wrong;

if not, there are no means capable either of restoring or preserving the healthy state of the latter.

In the solids the moving powers reside, and on them consequently all the changes of the system depend. By their healthy action, what is injurious or superfluous in the fluids is thrown off, and what is defective is supplied.

As the means of cure in disease operate chiefly on the solids, not the fluids, of the body, they are often such as have little or no relation to the state of the latter. Let us take, as an illustration, the simplest case, and that of most frequent occurrence. The powers of the stomach are weakened, the patient complains of acid eructations, and his breath and perspiration are morbidly impregnated with acid. By alkaline medicines this state is corrected, but constantly recurs on laying aside the antacid. It is finally corrected by such means as restore the powers of the stomach; but these means possess no corrective power with respect to the acid, which was the prominent symptom of the disease.

If the debility of the stomach happen not to be an original affection, but depend on that of some other organ—of the liver, for example—the means which give vigour to the stomach would, like the antacid, afford only temporary relief. To render the relief permanent, the original disease must then be corrected. The cure could only be effected by restoring the due action of the liver; and we might, perhaps, find an acid, instead of an alkali, the proper means. So fallacious would a chemical theory, built on the best possible evidence of the state of the fluids, such an evidence as we cannot have in one of a thousand cases, and suggesting so ready and perfect a means of correction, prove; and equally fallacious must prove all pathological reasoning founded on the same principles.

If, instead of the predominance of an acid, the fault had been in the prevalence of the saccharine, the oleaginous, or albuminous principle, although the proper treatment would have been less evident, it is only on the same principles that it could have been permanently successful; for if we could discover means of correcting such states of the fluids by their operation on the fluids themselves, which seems to be the aim of Dr. Prout, we should gain nothing more

by them than was gained by the alkali in the case just stated.

These, like every other permanent error in the fluids, must depend on a morbid state of one or more of the vital organs; because if their action were healthy, they would soon throw off the offending cause, and while their morbid action continues, however perfectly for the time that cause might be corrected; on laying aside the means, the fluids would immediately relapse into the same state; and the means of permanent cure would have no more relation to the morbid state of the fluids, than in the case of the indigestion, and therefore could never be suggested by the state of them.

We know that, in diabetes, there is a prevalence of the saccharine principle in the urine; but has this knowledge enabled us to cure the disease? I have, within the last twelvemonth, had the satisfaction to see a case of diabetes mellitus cured, and, as far as I yet know, permanently (the patient has remained well for about six months), by minute mercurial doses, given in the way I have recommended in my Treatise on Organic Diseases, combined with other means of strengthening the digestive organs; but none of these means had any particular relation to the state of the urine. When the healthy action of the organs was restored, the morbid state of the fluids, as a necessary consequence, was corrected.

Dr. Prout, in the nineteenth page of his Lectures, observes, referring to the morbid prevalence of the different principles stated by him, "But I need scarcely remark that it seldom or never happens that one principle alone is affected without involving, in a greater or less degree, the others," a sufficient ground of presumption that these changes are the effects of a common cause; which, I believe, I may say, will always be found to be the derangement of one or more of the vital organs, and can only be permanently corrected through them; and consequently by means which can never be either suggested or regulated by an exclusive attention to any particular train of their consequences.

As far as these consequences themselves tend to aggravate the symptoms, their correction will of course be beneficial, and a knowledge of their tendencies, therefore, is most desirable; but

in founding our general plans of treatment on them, we mistake the consequences for the cause of the evil, and our practice must necessarily be unsuccessful.

Such are the principles which assure me that a pathology founded chiefly on the state of the fluids, which a chemical pathology must always be, cannot fail to be erroneous. Their state, depending on that of the living powers, varies as it varies. The laws of these powers, therefore, and particularly the manner in which they are influenced by our various means of cure, must always be the chief objects of the physician. Dr. Prout's partiality for chemical research, in which he so greatly excels, as far as I am capable of judging, in many ways deceives him. Its tendency is to narrow our views of the animal economy, and lead in pathological reasonings to a neglect of the laws peculiar to it; which have nothing in common with those of chemistry, but on which the phenomena of disease, as well as of health, must always more or less directly depend.

Dr. Robertson's paper in the last number of the Medical Gazette, in which he comments on a supposed opinion of Dr. Prout and myself, proves that he has reflected much, and not unprofitably, on the part of the subject to which it relates; yet it might be shewn, perhaps, that his metaphysics are not wholly invulnerable; but on this part of the subject I have no intention of entering farther than is necessary to explain the sense in which I myself use the term organic agent. That there is a peculiarity in the processes of the living animal and vegetable, all admit; and consequently some cause or principle operating in their constitutions, which is peculiar to them. This something, as far as relates to the animal, has pretty generally obtained the name of vital principle. It is in this sense alone that I have on the present occasion adopted from Dr. Prout's treatise the term organic agent. I here prefer the word organic to vital, because, without any violence done to the ordinary meaning of the word, it may be applied indifferently either to animal or vegetable life; nor do I see the force of Dr. Robertson's objection to the word agent, used in the sense just explained, because, whether we use agent, principle, or any other expression, an agency is equally implied.

In the following sentence, which I quote from his paper, I conceive that he mistakes the meaning of Dr. Prout's expression. "The organic agent must, of course, rank in some grade intermediate, not intelligent, and yet not non-intelligent; yet nearer the intelligent than the non-intelligent, possessing a faculty only little short of intellect." Dr. Prout's expression is, "a faculty little short of intelligence." In this expression, as I understand it, Dr. Prout, so far from ascribing intelligence to the organic agent, denies that it possesses any degree of this property. Dr. Robertson is acquainted with the vulgar proverb, that a miss is as good as a mile. If we say that a man was little short of falling into a river, we as certainly inform the hearer that he had not fallen into it, as if we had simply announced the fact. All I understand by Dr. Prout's expression is, that such are the effects of the agency in question that they suggest the idea of intelligence.

It is curious to observe the simplicité of nature's means in the production of phenomena which, at first view, seem the most unintelligible. "In the germination of a seed," Dr. Robertson observes, "he (Dr. Pritchard*) thinks that all the early phenomena are partly mechanical, and partly chemical; but that the processes which follow the development of the young plant, as when the plume ascends between the cotyledons, and the radical strikes downwards, point to the operation of a higher power than merely mechanical principles; meaning, I presume, by this higher power, the immediate agency of the Deity."

Now the phenomena here selected as the most unintelligible in the process of vegetation, the beautiful and conclusive experiments of Mr. Andrew Knight have explained on the simplest, and therefore most satisfactory principles. He has given an unanswerable proof of the accuracy of his views, by causing both the plume and radical to shoot in any direction required, and even in his first experiment foretelling, with perfect accuracy, the direction in which they would shoot.

* See Dr. Pritchard's work on the Vital Principle.

DR. VENABLES ON ABORTION.

To the Editor of the London Medical Gazette.

SIR,

A CORRESPONDENT in your last number, who writes under an initial signature, (whether real or fictitious it is not of much importance to inquire) seems to doubt the correctness of, and wishes me to retract, the proposition which I have laid down—"that there is no known medicine capable of producing abortion, &c." I certainly acknowledge that I for some time felt it a question whether I ought not to have withheld the passage rather than present it for insertion in your Journal: not, however, because I entertained the slightest doubt as to the truth of the statements, but because I felt I was open to some degree of censure for venturing formally and gravely to propound to the scientific readers of your Journal a proposition the truth and correctness of which, perhaps, there could hardly be found a practitioner to dispute. Hence, then, I hesitated; because the fact, so far from being a valuable or interesting piece of information, (so far as the professional readers of the Medical Gazette are concerned) is to be looked upon rather as a work of supererogation; and the only excuse I can offer is, that which will be confirmed by a reference to the passage—namely, the expectation that the public press would, as far as in their power, circulate among the vulgar and the less-informed classes of society the delusion under which so many of them labour, so as to prevent the fatal—too often doubly fatal—consequences, and the penal responsibilities incurred in attempting a crime, in the perpetration of which it is almost a miracle if they succeed.

I know not whether your correspondent be a medical practitioner, or a mere general reader, anxious for more explicit information, and desirous of higher authority. If the former character, I beg to submit the following question for his consideration. If, in the course of his obstetric practice, he were to meet with a woman of so deformed a pelvis that it was impossible she could have a living child, or even go on to an advanced stage of pregnancy without endangering her life; and that, therefore, the premature

and early expulsion of the ovum became not only a legitimate object, but an essential to the preservation of his patient, to what internal remedy would he look for the accomplishment of his purpose? I myself know of none; nor in the systematic arrangements of the materia medica can I discover a class of "*abortives*." Nor should I expect the slightest advantage, or anticipate the most distant chance of accomplishing such an object, by any appeal to the powers of the secale cornutum, or ergot of rye, which I take to be the American remedy alluded to. I know that this drug is often administered to quicken the tardy and languid operations of the uterus, and no doubt, in some instances, with advantage. But there is a wide difference between assisting, and wholly preventing the natural functions of the organic system. The languid uterus may be excited to a more vigorous performance of its natural functions by a proper and judicious exhibition of such a medicine; but from what analogies can we infer that a natural operation is to be perverted or arrested, and an unnatural one substituted in its stead. Such may be the result of accident, of idiosyncrasy, &c. which are but mere solitary exceptions to the general principle; and as yet our knowledge has not developed the means of rendering them more frequent, or of bringing such unnatural perversions under the more certain controul of medicinal agents. Ergot of rye, in poisonous doses, for it is a *poison*, may, like any other individual of the class, produce abortion; but it is twenty thousand to one that it rather produces the death of the mother; and when it induces abortion, it is double that, that it also subsequently induces the death of the parent. I could have wished that I had been spared any allusion to ergot of rye, because I am reluctantly compelled to advert to the abuses in its administration. Why does the hurried accoucheur resort to its use? not because he conceives the tardy operations of the languid uterus require the gentle hint conveyed through the stimulating agency of this medicine, but because the natural action of this organ is not in the due proportion to his impatience, nor in a ratio of celerity adjusted to the number of his other engagements.

If, on the other hand, your correspondent should be a general reader, de-

siours of more explicit information, and of reference to other authorities, I beg to observe that I should not have asserted, in such decisive terms, a fact which was not the result of my own personal observation and experience, without reference to authorities, unless, indeed, as in the present case, it were a mere work of supererogation. Had I an opportunity of making the observation to the judge, so as to have secured the necessary publicity through the press for the advantage of that class of society for whose benefit it was intended, I had never put you to the trouble of inserting it in your Journal; but as the accused *pleaded guilty*, there was no examination of witnesses, and consequently no opportunity of the above description occurred.

Now, for the satisfaction of your correspondent, I beg to cite the following authorities, with such references as occur to me on the subject.

"Every woman who attempts to promote abortion, does it at the hazard of her life."—*Bartley*.

"There is no drug which will produce miscarriage in women who are not predisposed to it, without acting violently on their system, and probably endangering their lives."—*Male*.

"It has frequently occurred that the unhappy mother has herself been the sacrifice, while the object intended has not been accomplished."—*Dr. G. Smith*.

"But we must conclude that there is no medicine, or abortive means, which always produce abortion, and nothing but abortion; there is none which does not endanger the lives of the mother and infant."—*Hyden*, p. 154.

"Now we shall have occasion hereafter to show that medicines, internally administered, can seldom produce abortion."—*Paris and Fonblanque*, vol. iii. p. 90.

And again—

"From a very early period attempts have been made to devise means of procuring abortion, by the administration of certain drugs, which were considered as capable of acting specifically upon the womb, and of occasioning the expulsion (expulsion?) of its contents. It

would be idle to enumerate the various substances which have, at different times, been employed for such a purpose, not a few of which were derived from the fertile sources of credulity and superstition; and yet we are bound to admit, that upon this occasion, at least, credulity has proved a blessing to mankind, by suggesting the substitution of a harmless amulet, or an inefficacious drug, for an application of extreme violence and danger, and perhaps of death. The physicians of the present age disclaim the existence of any specific class of abortives; but we are ready to admit that the administration of violent medicines, by involving the uterus in the general shock thus given to the system, will occasion abortion provided there exist at the same time a certain predisposition on the part of the female; should this latter condition, however, be wanting, the *poculum abortivum* may, by the violence of its operation, destroy the life of the unhappy mother, or very materially injure her, without accomplishing the object for which it was administered. In the case of *Mrs. Robert Turner*, one of the persons possessed by *Elizabeth Fanning*, notwithstanding the long and violent sufferings she had experienced during her pregnancy, brought forth a living child at the natural period."—*Paris*, vol. iii. pp. 26, 24.

Mr. Burns also remarks, "it has been observed that those purgatives which occasion much tenesmus will be more likely to excite the expulsion of the ovum. The strong cathartics, however, which are sometimes taken to promote such an effect, act not only by exciting tenesmus, but likewise by inflaming the stomach and bowels, and thus affect the uterus in two ways. "It cannot be too generally known," he adds, "that when these medicines do produce abortion, the mother will seldom survive their effect."

Such are some of the authorities by which I would confirm the fact which I have advanced—a fact perfectly consistent with my own personal observation and experience—an experience, too, upon all the phenomena of pregnancy, and the principles of obstetrics, by no means limited, and possibly but little inferior to that of any man of my age and standing in the profession.

ROBERT VERMABLES.

Chelmsford, August 27, 1861.

"The respectable author here had not been sufficiently precise; because 'abortive means' will include those mechanical means to which obstetric practitioners resort for the sole purpose of abortion, or, in fact, premature labour at a very early period, and which are not considered as materially endangering the life of the parent.

OIL OF PEPPERMINT IN CHOLERA.

To the Editor of the *London Medical Gazette*.

SIR,

At a period when the subject of cholera continues to be so freely discussed, the mere mention of cases terminating in a favourable manner no doubt contributes in some degree to relieve the strong apprehensions entertained by the public as to this horrible disease. The cholera that is common to this country is generally of a mild character, and readily yields to the power of medicine; but occasionally the practitioner is called upon to witness its appearance in a highly aggravated form, threatening defiance to his skill, and almost setting at naught his best-concerted schemes. Happily it does not very frequently assume an alarming aspect, yet it occurs sufficiently often to make us desirous of seeking out a remedy which would render it more manageable in our hands, and by which we might be enabled to mitigate this affliction of suffering humanity.

In the perusal of your hebdomadal, I find that cajuput oil is strongly recommended in the present epidemic; and emanating from so high a source in the profession, it has certainly descended to us impressed with the stamp of authority. But although its efficacy has been illustrated in a few individual cases, it requires the test of experience to prove that it possesses properties of a specific nature. It appears to me that its influence is dependent upon an aromatic stimulating principle therein contained; and if so, the question might be legitimately proposed, why should not cinnamon, peppermint, or any other of the strong essential oils, be as efficacious in their operation as the one in question, since similar properties have been assigned, by the writers upon therapeutics, to them all?

During the last few weeks, cholera having prevailed to some extent in this neighbourhood, I have administered the oil of peppermint, in two or three severe cases, with the most satisfactory results. In one case, where the patient was attacked with diarrhoea and vomiting of a greenish watery fluid, succeeded by violent spasmodic action of the muscles of the lower extremities, and

a constant disposition to syncope, it seems to operate like a charm; and although the symptoms returned at repeated intervals, they were uniformly relieved by the exhibition of this powerful antispasmodic. The dose usually given was from eight to ten minims of the oil, in an ounce of the cretaceous mixture, every three hours.

If these few passing remarks should be considered as meriting a place in your highly interesting and valuable periodical, by inserting them you will oblige

Your very obedient servant,

CHARLES THORNHILL.

Darlaston, Staffordshire,
September 2, 1834.

OBSERVATIONS

ON

THE SHARK (SQUALUS); THE ANATOMY OF ITS EYE; ITS MUSCULAR IRRITABILITY, &c.

By GEORGE BENNETT, Esq.

Member of the Royal College of Surgeons, &c. &c.

(With Woodcuts.)

SHARKS are formidable from their muscular strength and the numerous rows of teeth with which their expansive and powerful jaws are armed: they may be considered as the most destructive and voracious of all the inhabitants of the deep. Their stomachs, which are of enormous capacity, are generally found filled with a mixed collection of substances, some of which seem calculated to try the strength of their digestive powers. It does not appear that their sense of smell always guides them in procuring food, as paper, canvas, or indeed any thing thrown overboard which they are capable of swallowing, is greedily devoured by them. To decide correctly on the *habitat*, or extent of range, taken by any particular species, is difficult, and requires a numerous collection of facts. Frequent mistakes are made in this respect; as in the instance of the *squalus cornubicus*, or porbeagle shark, whose *habitat* was supposed to be confined to the British coasts, but which I have since discovered has been found, although rarely, inhabiting the coasts of New Zealand.

The genus is thus defined by Linnæus, and the species composing it are very numerous:—

Squalus.

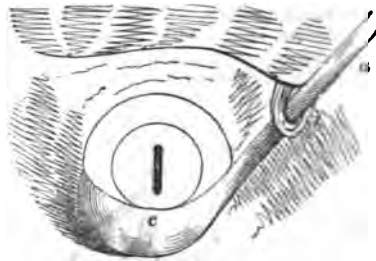
Caput obtusum. *Spiracula* 4-7. ad latera colli, semilunaria.
Oculi oblongi, verticales, dimidia parte tecti, ante foramen temporale.
Os in anteriore et inferiore capitis parte, pluribus dentium serratorum, acutorum, partim mobilium, partim fixorum, forma inæqualium armatum.

Corpus oblongum, teretiusculum, tenerrimis aculeis asperum.

Pinnæ ventrales, pectoralibus ut plurimum minores, approximatae, circa anum, et in mare circa genitalia positæ.

On the 29th of September, 1828, one of the species named *squalus carcharias*, or white shark (which is the most widely-distributed species known) was captured in latitude $11^{\circ} 56'$ north, and longitude $22^{\circ} 30'$ west. This specimen was small, being not more than six feet in length; but I have seen some of this species taken which have measured ten, and in one instance fourteen feet in length. I availed myself of the opportunity thus offered to examine the structure of the eye in this fish, and the following account is the result of my observations, subsequently confirmed by frequent dissections of the eye in this as well as in other species. The outer coat surrounding the eye is a continuation of the rough and dense integument of the animal; this being removed, the eye is seen embedded in a gelatinous substance, and seems to be capable of a great extent of motion in its socket. The muscles belonging to the eye in this animal are, the levator squammæ oculi, four recti (of which two are lateral, one superior, and one inferior), and two oblique. The most external is that muscle which, from its use, has been named levator squammæ oculi; it arises from the upper and back part of the temporal region, passes downwards and forwards, and in its course passes through a small loop, to which it is attached by loose cellular membrane; this loop arises from a process from the orbit; the muscle passes down, and is inserted tendinous into a cartilaginous cup-like covering. The action of this muscle is to draw the covering over the eye; the use of this covering, however, is not yet explained; it seems analogous to the *membrana nictitans* in some other

animals; but why it is found in the shark and not in other fish, it is difficult to conjecture: even the ray, which, in the structure of its eye, so closely resembles the shark, is destitute of it. By some it is supposed to act as a lower eyelid. The following rough sketch is intended to shew this part, and its situation with respect to the eye-ball.



A, the levator squammæ oculi muscle.

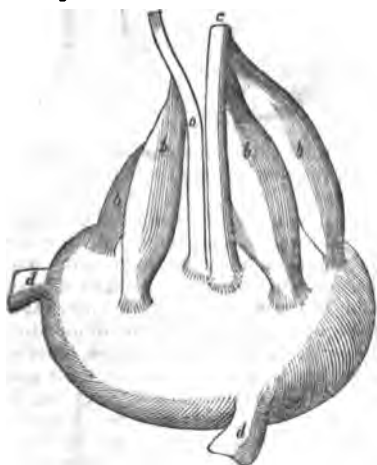
B, the loop through which the muscle passes.

C, the cartilaginous cup-like covering.

The recti muscles arise from the cartilaginous stem at its connexion with the orbit, as well as, in a slight degree, from the orbit itself; passing down they diverge, and are inserted tendinous into the sclerotica. The oblique muscles have their origin from the anterior part of the orbit near together; they are the superior and inferior—the superior passing obliquely downwards, the inferior obliquely upwards; and they rotate the eye on its axis. Dr. Clarke Abel observes, that, “in ordinary action, they probably affect only the articulation of the cartilaginous stem with the globe of the eye; but where the greatest extent of motion is requisite, they may also affect its articulation with the socket.”

The next part of the structure of the eye to be noticed is the cartilaginous stem, which is found also in the ray, and, I believe, in all the chondropterygii or cartilaginous fish, without an exception. Those in which it is found to exist have a great mobility of that organ, and in those destitute of it the motions of the eye are very confined. This stem is a dense cartilaginous body, nearly cylindrical, attached to the socket of the eye, and to the centre of the ball, by its rounded extremities received into a cup-like cavity, to which they are combined by capsular ligaments; it passes down at a very short

distance from the optic nerve, to which it is attached by cellular membrane, and is close to it as it enters the eye-ball. This stem keeps the eye on a fixed point, and is considered by Cuvier to act as a lever for the muscles. Dr. Clarke Abel considers that it "seems rather to give extent than power to the action of the muscles;" and he further observes, that "this organization seems necessary in the shark, which takes its prey by turning on its back, to enable it to keep its object in view when preparing to seize it." The following cut, from my preparation, shews the situation of these parts.



a, the cartilaginous stem.
b, b, b, b, the recti muscles.
c, the optic nerve.
d, d, portions of the oblique muscles.

In the eye of this species of shark, I remarked that the pupil was perpendicular; in the blue shark (*squalus glaucus*, Linn.), of which, however, I had only an opportunity of observing one, the pupil was round.

In the nostrils of the shark there is a pectinated structure, on which the olfactory membrane is placed, and over which the olfactory nerves are distributed. This is subject to disease, resulting from the irritation of animalculæ. I found a specimen of the *squalus glaucus*, or blue shark (which was captured on the 5th of January, 1831, in latitude $30^{\circ} 1'$ south, longitude $41^{\circ} 25'$ east), diseased in this part; the morbid appearances resembled tumors, and contained a quantity of epizoeæ. An account of this disease

and the epizoeæ will form the subject of a future paper. The stomach and intestines of sharks, as well as of other fish, have often several species of animalculæ attached to them.

The teeth of sharks vary in different species. Blumenbach observes, that "in most of the sharks the mouth is furnished with very numerous teeth, for the supply of such as may be lost. The white shark has more than two hundred, lying on each other in rows, almost like the leaves of an artichoke. Those only which form the front row have a perpendicular direction, and are completely uncovered. Those of the subsequent rows are, on the contrary, smaller, have their points turned backwards, and are covered by a kind of gum. These come through the covering substance, and pass forward, when any teeth of the front row are lost. It will be understood from this description that the teeth in question cannot have any fangs *."

The shark, no doubt, sheds its teeth at certain periods, and the posterior rows are to supply, in succession, the places of those so lost, as, in a number of jaws that I have examined of different species, the second row may frequently be seen in a perpendicular direction, advancing to supply the place of the first. With respect to such teeth having fangs, those of most species have merely rudiments of them, excepting the *squalus cornubicus*, or porbeagle shark, which has two distinct fangs to every tooth, and they may be seen in the second and third as well as in the first rows. The posterior rows having their points turned backwards, prevent their prey, when seized, from escaping. The teeth of the shark are used by the Polynesian natives, fixed in rows, as knives. They are attached also to their spears, are used for cutting themselves on occasions of joy or grief, and were employed, previously to the introduction of European knives, for the ornamental carving of their weapons, domestic utensils, &c.

There is a species of shark at New Zealand which I have heard named by seamen the *ground shark*: the teeth procured from this species differ from all others that I have seen; they are long, rather curved inwards, flattened anteriorly, sharp pointed, *unserrated at the edges*, and

* Blumenbach's Comparative Anatomy, by Lawrence and Goulson, page 76.

have two rather long fangs. They are considered rare at New Zealand, and the teeth are highly valued by the natives, who wear them, with a hole bored through them, as appendages to their ears; they carve their green jasper stone also in the form of these teeth, and wear them in a similar manner: these teeth were so highly prized by the natives, that to procure one was a matter of difficulty. I for some time, since my return to England, endeavoured to ascertain the species to which these teeth belonged, but I was unsuccessful, until lately examining the jaws of the various species of sharks in the Museum of the Royal College of Surgeons, in London, I found it to be the *squalus cornubicus*, or Porbeagle shark, which is thus noticed in the published catalogue of the College:—

No. 1832.—The skull, and part of the spine, of a small porbeagle shark. *Squalus cornubicus*. Fig. Borlase's History of Cornwall. Habitat. The British seas.

This species, from its magnitude when full grown, has sometimes been confounded with the *squalus carcharias*, or white shark.—Presented by Dr. Leach, 1820.

The fore-teeth, near the symphysis, accorded in every respect with the New Zealand specimens; more posterior they became equilateral, but were all unserrated at their edges.

I have now to relate an extraordinary coincidence respecting the teeth of this species, which has been found inhabiting the British seas and the coasts of New Zealand. In a collection of fossil specimens in the possession of F. R. Gower, Esq. I was surprised at perceiving some teeth resembling those of this species, which had been found imbedded in an argillaceous soil, during the formation of the Highgate Tunnel, in 1809 and 10. The enamel of these teeth had become of a light blueish colour, but the fangs were not so perfect as in other specimens in the same collection, which, as well as having the fangs quite perfect, were of much larger size. These latter specimens were supposed to have been brought from some part of Somersetshire, and the enamel had also the blueish tinge similar to those procured from Highgate. The following figures show the form of the teeth. Fig. 1. The tooth of the porbeagle shark, drawn from the

specimen in the Museum of the Royal College of Surgeons. Fig. 2. A lateral view of the same. Fig. 3. The tooth from New Zealand. Fig. 4. A drawing of one of the fossil teeth in Mr. Gower's collection.

Fig. 1.



Fig. 2.



Fig. 3.

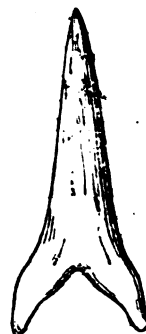


Fig. 4.



The teeth of the *squalus monensis*, or Beaumaris shark, are similar to the preceding, except in having at the base two sharp processes. The following is the description of the *squalus cornubicus*, or Porbeagle shark, from Shaw's Zoology, Vol. V. Part 2, pp. 349-50, but the teeth are not described:—

“This species is slightly described by Mr. Pennant in the British Zoology, from an engraving in Borlase's History of Cornwall, which was copied from a drawing by the Rev. Mr. Jago, minister of Loo, in Cornwall. A specimen observed in the year 1793, by the Rev. Mr. Goodenough, on the coast of Hastings, is described in the third volume of the Linnæan Transactions. Its length, from the tip of the snout to the extre-

imity of the tail, was three feet ten inches; the colour of the body a deep blue on the back, and white or silvery beneath; the shape was round, except for about six inches from the tail, where it was depressed; at about an inch from the tail was a semicircular or lunar fossule, or impression; the points of which were towards the tail; where the body was depressed the sides were raised into a sharp angle, or elevated line, of about eight inches in length, running into the middle of the tail, or a little beyond; the nose was prominent and sharp, and on either side from the nose to the eyes were numerous perforations, or minute pores; the tail was of a lunar form, the upper lobe nearly a third longer than the lower. From the number of teeth, which were two rows in each jaw, the fishermen concluded it to be two years old, and Mr. Goodenough was assured that they had been seen of the length of eight feet, with three rows of teeth."

The capture of one of these voracious animals frequently beguiles a tedious hour during a long voyage. Its struggles, when brought on deck, are very great, but a few severe blows on the nose soon disables it from further exertion. When seizing any object, the animal turns on the side, not (as is generally supposed) on the back. The shark, judging by an European palate, is not good eating; the fins and tail are very glutinous, and are the portions most relished by the seamen, and dried they form an article of commerce to China, where they are used in soups, and considered as an excellent aphrodisiac. I have seen several sharks and bonetos about the ship at the same time, but I never observed the former attempt to molest the latter. The shark is eaten eagerly by the natives of the Polynesian islands, and I have often seen them feasting on it in a raw state, when they gorge themselves to such an excess as to occasion vomiting. It is not an unfrequent source of illness among these islanders, and they suffer so much in consequence as to lead them to suppose that their dissolution is nigh, but they cannot be persuaded that the eating of raw fish is the cause. An emetic soon removes the symptoms by removing the cause, and the sufferer considers the cure as almost miraculous.

Attending the shark is seen that beautiful little fish the *gasterosteus* (the

or pilot fish, who first approaching the bait, returns as if to give notice, when, immediately after, the shark approaches and seizes it*. It is a curious circumstance that this elegant little fish is seen in attendance only upon the shark. After the shark is hooked, the pilot-fish still swims about, and for some time after he has been hauled on deck; they then swim very near the surface of the water, and at that time I have seen them taken by a basket from the chains of the ship. When the shark has been hooked and afterwards escapes, he generally returns, and renews the attack with increased ferocity, irritated perhaps by the wound he has received.

On the 28th of October, 1830, in the straits of Singapore, about three miles distant from the Malayan coast, I saw, for the first time, the *Squalus zygena* of Linnaeus, or hammer-headed shark, (*Zygena malleus*, Valenciennes): it was of small size, and passed so close by the ship, swimming on the surface of the water, as to enable me to have an excellent view of its peculiarly formed head. It did not remain long about the ship.

On the 18th of March, 1831, in latitude $44^{\circ} 56'$ north, and longitude $25^{\circ} 10'$ west, in the evening, two sharks of a very large size were seen at a short distance from the ship. A high dorsal fin, projecting from the water, was at first only discernible, and had a resemblance to a rock†. It was at first stationary, but soon began to move steadily along, and then occasionally the tail could be seen partially above the water. I know not what species to refer it to; one of the crew on board, who had been in a whaler, said that it was what they named a "bone shark," which is seen in numbers alongside the ships when they are cutting up a whale. He said also, that he had seen them as large as a "twenty-barrel whale;" that "the mouth resembled the gill of a fish, and

* The shark is more wary of taking the bait when unaccompanied by the pilot-fish; it will then approach, and retire several times before it ventures to seize it; but when the little pilot is in company it will first approach the bait, (the shark waiting at some distance) and return, as if to report; when the shark advances and seizes the bait without hesitation: this I have remarked in numerous instances.

† Being at first stationary, and of a dark colour, a ship passing it rapidly might have considered it as one, and reported accordingly, and such a circumstance has no doubt caused many rocks to be laid down in the charts which have actually no existence.

they are spotted over the back." Whether the latter part of this account accorded with the actual appearance of the fish, I was not sufficiently near to ascertain, but it appeared correct with respect to their large size.

The natives of the Polynesian islands have such a dread of sharks as to worship some of them as gods; not from any respect or love towards them, but from fear. Ellis states, that, "although they would not only kill, but eat certain kinds of shark, the large blue sharks (*squalus glaucus*) were deified by them; and, rather than attempt to destroy them, they would endeavour to propitiate their favour by prayers and offerings. Temples were erected, in which priests officiated, and offerings were presented to the deified monsters, while fishermen and others who were much at sea sought their favour. Many ludicrous legends were formerly in circulation among the people, relative to the regard paid by the sharks at sea to priests of their temples, whom they were always said to recognize, and never to injure. The principal motives, however, by which the people appear to have been influenced in their homage to these creatures, was the same that operated on their minds in reference to other acts of idolatry: it was the principle of fear, and a desire to avoid destruction in the event of being exposed to their anger at sea*."

An accident occurred during my stay at Cavité (Island of Luçon). On August 10, 1830, a native lad, whilst bathing, had his thigh so lacerated by a shark as to occasion a speedy death from hæmorrhage. This was not, the inhabitants informed me, an uncommon occurrence at this place, when persons incautiously bathed in deep water.

In olden times, sharks were considered to be allied to the Leviathans of the deep, and afforded then, as at the present day, amusement to passengers traversing the ocean. The following account of the capture of one of these voracious animals, from Dr. Fryer's

"New Account of India and Persia," published in 1698, is amusing:—

"Two of the lesser offspring of the great Leviathan (the weather being calm, these sort of them else not visible, being of no swift motion) came sailing after us; our men, as eager of them as they of their prey, hastened their engines for to take them; which no sooner in the water but each of them, guided by some half a dozen delicately coloured little fishes, which, for their own safeguard, perform the office of pilots (they never offering to satisfy their hunger on them), who lead them to the baits; when they, turning their bellies up, seize upon them on their backs, hook themselves in the toils, beating the sea into a breach, and not without a great many hands are drawn over the sides of the ship; which seen by the poor silly little fishes (as conscious of their error), they swim to and again, and hardly forsake the ship; but being within board, the ship's company, armed with hatchets, presently divide the spoil. They are not scaly, and therefore imagined to be a kind of whale, being finned like them, with a great fin on their backs near their tails (which dried, is used instead of a slate) of a darkish grey colour on their backs, lighter on their sides, and white under their bellies; their snout on the same plain with their mouths, but their mouth within that a great way; the cause why they turn their bellies when they take their prey. The mouth of one of them extended, is two spans wide, armed within with three tire of sharp-pointed teeth on both jaws, so piercing that needles exceed them not, and of such strength that a leg or an arm, bone and all, is but an easy morsel; wherefore called *sharks* by the seamen, on whom they are bold enough to fasten and dismember, if not shunned, when they wash themselves. They are of a rank smell, and not good to eat but by stout stomachs; of length they are ten, sometimes fourteen feet." Page 5.

I shall now conclude with a few observations on muscular irritability, as exemplified by the shark. That which is termed muscular irritability, and which is met with to a great degree in all cold-blooded animals, is well exemplified in the shark, which perhaps possesses it to a greater degree than other kinds of fish. I have seen a shark transfixed with an harpoon after it had

* In one of the fabulous legends of the natives of the Island of Tahiti, their island is represented "as having been a shark, originally from Raltee. Matarafau, in the east, was the head; and a place near Faan, on the west, was the tail; the large lake Valbira was the ventricles or gills; while the lofty Oreheena, the highest mountain in the island, probably six or seven thousand feet above the sea, was regarded as its dorsal fin; and its ventral fin was Mataval."—*Ellis's Polynesian Researches*, vol. i. page 167.

been hooked, so as to cause the viscera to protrude; it was hoisted on deck, when, after a quarter of an hour had elapsed, the lower part was separated from the upper (which detached lower portion for a long time displayed great powers of vitality); the head and upper portion were afterwards thrown into the water, when the pectoral fins were moved as in the action of swimming. How long this irritability continued I cannot say (but from other instances that I had seen, I should consider for a long period), as it soon went astern of the ship. I have frequently seen the animal hauled on deck, the whole of the viscera extracted, and the body otherwise mangled when thrown overboard, swim for some distance in this mutilated state. Again, a shark has been hung up with the abdomen ripped open, the whole of the viscera extracted, and the head detached; yet symptoms of vitality, or rather muscular irritability, remained for three hours from the time of its removal from the water; and this frequently occasions the spectators to consider that the animal is in a state of suffering. It is only in the cold-blooded animals that we meet with it to such an extent; in the warm-blooded animals it occurs, but in a very slight degree.

Blumenbach, in his *Manual of Natural History*, thus mentions the reproductive power and independent vitality with reference to the amphibia:—"The extraordinary strength of the reproductive power in several amphibia, and the astonishing facility with which the process is carried on, depend, if I mistake not, on the great magnitude of their nerves and the diminutive proportion of their brain. The former parts are, in consequence, less dependent on the latter; hence the whole machine has less powers of motion, and displays less sympathy; the mode of existence is more simple, and approaches more nearly to that of the vegetable world than in the warm-blooded classes; but, on the contrary, the parts possess a greater individual independent vitality. Since, in consequence of this latter endowment, stimuli which operate on one part, or one system, do not immediately affect the whole frame by sympathy, as in warm-blooded animals, we are enabled to explain the peculiar tenacity of life which is displayed under various circumstances in this class—viz. frogs still

198.—VIII.

continue to jump about after their heart has been torn out, and turtles have lived for months after the removal of the whole brain from the cranium. The long-continued power of motion in parts which have been cut off from the body, as in the tail of the water-newt and blind-worm, may be explained upon the same principles."—Sect. 98.

The length of time that this irritability exists in snakes, has given rise to the opinion of the vulgar, that "*if a snake is killed in the morning, it will not die before sun-set.*" Among numerous instances of irritability in the warm-blooded class, shortly after death the heart may be stimulated to perform its natural action, by being punctured; and in a limb after amputation, the muscles are excited to contract by a scalpel being plunged into them.

London, August 31, 1831.

MEDICAL GAZETTE.

Saturday, September 17, 1831.

"Licet omnibus, licet etiam mihi, dignitatem *Artis Medicæ* tueri; potestas modo veniendi in publicum sit, dicendi periculum non recuso."—CICERO.

THE LATE SCHEME OF A COLLEGE OF MEDICINE.

WE have no doubt that some few individuals there may be, bold enough to say, and perhaps silly enough to believe, that the Collegium Wakleyanum still lingers out its miserable existence. There never yet, we believe, was a plot discovered, or a favourite bubble scheme exploded, some of the adherents of which did not cling to its vanishing relics with the attachment of charmed devotees, and even persuade themselves that all hope was not quite extinct. When some great impostor, who has had disciples, obeys the common lot of humanity, nothing is more frequent than for many of those followers to delude themselves into the belief that all is not lost—that the great heresiarch is still

3 E

forthcoming—and that, like the sun in an eclipse, the reappearance of the superior influence will be attended with additional splendour. The poor misguided followers of Johanna Southcote could not be convinced that their prophetess was no more until, by the testimony of more senses than one, they were obliged to concede that mooted point. And so we have no doubt it is with some of the disciples—nay, with some of the supporters, of the Collegium Wakleyanum scheme—that darling project, which had so many of the most notorious spirits of the metropolis in the list of its supporters—

Ambubalarum collegia, pharmacopolæ,
Mendiol, mīmæ, balatrones, hoc genus omne,

all, all now in tribulation and discomfiture at the calamity which has occurred—or which, as some would fain believe, is still impending, and might possibly, by some lucky conjecture, be averted. We cannot, nor will we, pretend to offer either sympathy or hope to these unhappy individuals: in us, it were more an act consistent with our duty to offer them wholesome advice, and awake them to a sense of their situation—to expostulate with them generally on the silly exposure of themselves which they have made; and when we suspect some of the said individuals to be more than ordinarily infatuated and obstinate, to reduce them to reason by a suitable severity. We will not mince the matter with them, and we are sure they will like us the better for our sincerity. How then stands the case? A great *fanfaronnade* is sounded: a college is said to be formed: and we are anxious to know its component parts. We take up the list which is thrust into our hands, and what names do we find set down as constituting the *senatus academicus*? A band of persons chiefly effete and broken-down teachers—all of them men of disappointed hopes—dissatisfied with their

present condition—and longed together under the leadership of a man of desperate fortunes. They meet together in private to concoct schemes of they know not what—they have every thing to expect from a change—they have nothing to lose—and their primary object is to secure as many associates as they can. They propose subscriptions, eleemosynary funds, fellowships, doctorships, hospitals, and professors' chairs. Promises are cheap—they promise every thing: they talk much and big about all manner of supposed attractions, purity of principle, (!) reform of abuses, a new constitution, and all that sort of thing. They call public meetings, contrive on the first occasion to gather a handful of people together, and to wheedle a certain member of parliament into the chair; make speeches for the mystification of themselves and the public, and try every expedient to attract the notice of the press. But all will not do: the public are not to be so readily gulled. Not all the desperate efforts and exertions of the party, their Crown-and-Anchor buffooneries, their heaps of anonymous and mock epistles, their announcements of fictitious correspondents, and their trumped-up replies—not all these combined could save the abortive bantling from premature starvation. It is gone—sunk—no more—and peace be to its unhappy manes!

We shall now in some sort (by way of consolation) examine more particularly into the causes which led to this sad event. These, we imagine, were principally two—desperate mismanagement, and the parts being committed to the most inappropriate performers. Of the scenes which were enacted at the Crown and Anchor we have had occasion formerly to speak; they were of the serio-comic kind, though with somewhat more drollery intermixed than was seemly. The clowns acted

more than was set down for them, and the thing because "caviare to the general"—it pleased not the million. The second representation drew no house, and a third was not even attempted; so that the theatrical speculation failed completely. Other expedients were now devised. The hebdomadal organ of the company was set to work, and anonymous letters, and rumours of letters, of the most ridiculous description, were attempted to be played off periodically. We have a few of these precious documents lying before us, and shall present some part of them to our readers as a treat. The writers are supposed to make certain inquiries at the president, or founder (or whatever be the title he rejoice in) of the college; and he, as Sir Oracle, replies most sapiently. One would suppose, however, that some of the questions were *really* sent by some wag who wished to have a little fun with the founder. The first comes (probably it does) from the emerald isle:—

"Are fellows and members of the College of Physicians, and of the College of Surgeons, in Ireland, eligible [to fellowships in the Collegium Wakleyanum]?" Hear the important reply:—"Undoubtedly!"

Now really this is too cruel of the leister-manufacturer, to make his first joke turn upon the query, as it were, of a fellow of the King and Queen's College of Physicians in Ireland! If he goes on in this way, he will surely be the death of us. The querist wished to become an *honorary fellow*, we presume, of the Collegium Wakleyanum. Capital!

Let us have another:—

"Will the production of diplomas be adequate proof of the eligibility of a candidate for admission to a fellowship [in the Col. Waki.]?"

"Certainly not; it will invariably be necessary that documentary evidence should be supported by the *collateral testimony of respectable personal re-*

ference. How otherwise can the candidate be satisfactorily identified with his testimonials?"

The answer is perfectly proper. What is more probable than that the candidates for the Wakleyan Fellowships would come forward with diplomas not their own—begged, borrowed, or stolen—*quocunque modo*, to attain the summit of their ambition—to get a Wakleyan fellowship? There ought to be no reasonable objection, then, one should think, on the part of any *gentlemanly* candidate, to bring along with the diplomas "the collateral testimony of respectable personal reference." It would certainly have been a good check on the aspirants to Wakleyan honours, to be obliged to produce a *respectable reference*; though we rather suspect that this regulation, had the thing gone on, would have been to be applied with much latitude of indulgence.

But there was a harder test—and a dreadful penalty besides—attached to the fraudulent attainment of the said honours in other circumstances.

"What proofs will be required to establish the fact of having been in practice before August 1815? Will the production of account books suffice [to satisfy the mind of the adjudicator of the fellowship]?"

The reply is most serious. "*Two respectable references to professional gentlemen will be necessary, or one reference with the production of the books. It should, however, be remembered that diplomas obtained by means of misrepresentation [of which sort a large number may be calculated upon] will be forfeited on discovery of the fraud, and the families of such persons will not be allowed to derive any benefit from the ELEMOSYNARY FUND.*"

That, we must say, was, in our opinion, a very wholesome law: the families of the *convicted* rogues obtaining fellowships in the Collegium Wakleyanum, should have no claim upon the eleemosynary fund; enough for the

rogues if they be lucky enough to escape detection.

"Are chemists and druggists, who do not practise either medicine or surgery, but who, nevertheless, are members of the College of surgeons, eligible candidates [for fellowships in the Collegium Wakleyanum Medico-Chirurgico-Apothecarium]?" The answer to this query is rather verbose. The President is of opinion, if we understand him aright, that the title of "Doctor" ought to be bestowed with some little discretion; at all events, that mere druggists should not rashly aspire to that distinguished honour. But with what latitude this restriction was to be understood, might be gathered from another question in another letter. We quote from memory:—

"Is a young man who has passed Apothecaries' Hall, after serving his apprenticeship, admissible to a fellowship in the Collegium Wakleyanum?" Certainly; upon complying with the other conditions, of producing his testimonials and giving a respectable reference.

The reply to another query cannot be too extensively circulated:—

"How much is the money?"

"Three guineas: and the sooner it is forwarded to the Committee, the better. The subscription to the eleemosynary fund is not yet fixed, but that need not prevent any gentleman from contributing at once to the support of *this charitable institution*."

One more question and answer, and we must close our specimens:—

"Is it likely that the sanction of parliament will be obtained for the Collegium Wakleyanum?"

"*A doubt cannot be entertained on the subject.*"

How truly like an oracle! The reader will not fail to observe the beautiful ambiguity which resides in this brief, simple-looking answer. The

oracular response which Pyrrhus received, touching his warfare with the Romans, was not more encouraging than this, nor more remarkable surely for its result.

We now turn to make a remark or two on the personages—the *dramatis personæ*—engaged in this notable scheme. The prime mover and acting manager is so well known to the public—we have described him so often—that to dwell more particularly on his merits on the present occasion must be totally unnecessary.

We may more usefully direct our attention to some of the other performers, who are perhaps less known to fame. By the way though, we should take some credit to ourselves for the sagacity with which we marked out all the appointments about the Collegium Wakleyanum, at a time when the only clue we had to the formation of such a programme was the problem:—Given such and such objects to be attained, state who are likely to be the agents. We solved it correctly; even down to the Old Bailey reporter, whom we assigned to the post of secretary, it turns out that we made no essential mistake. There were, indeed, one or two additions to the list, such as we gave it; but these were not contemplated in the original project, and their accession to the scheme was rather the result of circumstances, than of any reasonable calculation on the subject. And how have the names of these senators extraordinary affected the list of the Wakleyan agents? For any good purpose not in the slightest degree. One of them, an ancient ex-teacher of anatomy (and all his life no more than a teacher of that single bare branch of medicine), should have been prevented by his friends and guardians from disgracing himself thus in his latter days. The aged courser should have been spared this ignominy;

and, as the poet recommends, be suffered to finish his career in retirement and seclusion,

" ne
Pecor ad extremum ridendus et illa ducant."

But a certain other individual of this class seems to have joined the Wakleyan establishment out of pure wantonness, (it can be accounted for in no other way;) one who, without adding anything to the respectability of the body with which he became connected, has materially contributed to set himself forth in his due dimensions before the profession and the public. This man had a College of his own to mind—a College, too, which wants minding, but which *he* seems, with an instinctive sagacity, to have taken measures to eschew. Is it possible that that establishment, amid its other incongruities and incomprehensible proceedings, will continue to harbour in one of its chairs a man who has sunk himself, and by implication the University, to so considerable an extent? We warn, and we call upon the heads of that establishment from which he derives whatever reputation he enjoys, to insist upon his return to the allegiance from which he has so ungratefully swerved.

A few of the other survivors and *confères*, whom we had destined for a little serious conversation, must wait for a more convenient opportunity. For the present we shall content ourselves with what we have said.

HOTEL DIEU, PARIS.

THIS great hospital, the centre of so many associations connected with our profession—the school in which so many illustrious men have studied, and become the teachers of successive generations—will soon cease to exist. We understand that the state of the building, which is very old, renders its de-

molition necessary, while the confined nature of the situation in which it is placed will prevent its reconstruction on the same site. The patients are to be moved to the *Hôtel des Invalides*.

COLLEGIUM WAKLEYANUM.

THE inquest to which we alluded in our last turned out as we suspected it would. The jury, upon coming to take a view of the body—to proceed, as the law directs, *super visum corporis*—were astonished to find that they could see nothing: not a vestige of the body was to be seen—it was evaporated, vanished no man knew whither. The Coroner of course did not detain the jury, but discharged them after a suitable address, in the course of which he mentioned that in all his experience he had never met with any thing so awful, nor even approaching it, with the exception of a dreadful case of spontaneous combustion on which it was his melancholy duty to sit some years ago. A solemn feeling of seriousness was impressed upon every brow as the court broke up.

THE EMIGRATION OF THE SWALLOW.

THE swallow is found an inhabitant of the tropical regions of the globe, visits the northern climates during the warm months of the year, and is regarded as the harbinger of summer; emigrating, however, with their young, to a more congenial climate on the approach of winter. It is then that they are met with at sea, perching, in an exhausted condition, on the rigging and decks of ships. Being interrupted by adverse winds, they waver in their course, spent with famine and fatigue, until the ship affords them a temporary resting-place; from which, refreshed by a few hours' rest, they renew their flight. They are said to arrive in Africa about the commencement of October, having performed their fatiguing journey in the space of seven days. During a passage

from England to New South Wales on the 27th of September, 1828, several of these birds alighted in an exhausted condition on the rigging and deck of the ship, and were readily captured: we were at that time in latitude $13^{\circ} 40'$ north, and longitude $23^{\circ} 20'$ west; they were the *hirundo rustica* of Linnæus.

During a voyage from India to England on the 2d of December, 1822, I captured one of these little feathery emigrants in latitude $2^{\circ} 18'$ north, longitude $23^{\circ} 11'$ west.

I am not aware whether they emigrate from one tropical country to another, but during a passage from Manilla to Singapore, through the China sea, on the 20th of October, 1830, for several days a number of these birds were flying about the ship; and I am inclined to suppose derived at that period sustenance from the flies which infested the ship, as soon afterwards but few of those insects remained. In the evening they would roost on the rigging, and some even took refuge for the night in the chief officer's cabin, which opened upon the deck, and were again set at liberty in the morning. They became after a few days exhausted; several were found dead; and others became so tame from fatigue and hunger as to be easily caught, and would afterwards remain perched on the hand, without making any effort to regain their liberty. These were also of the species *hirundo rustica* of Linnæus, which is widely distributed over the globe. We first observed them in latitude $15^{\circ} 29'$ north, and longitude $117^{\circ} 40'$ east; and we lost them, most having perished, in latitude $13^{\circ} 30'$ north, longitude $110^{\circ} 45'$ east, having been about the ship for thirteen days.

The question that arises is, whether in the latter instances they were emigrating, or had been blown off the land by the westerly gales we had experienced since leaving Manilla Bay. It may be mentioned, that as we had at the same time numerous other land birds about the ship, the latter supposition is not improbable.—*From Mr. G. Bennett's MS. Journal.*

NAGA-PUSING OF MALACCA, &c.

At Singapore I observed some filaments from a plant which was described as

growing abundantly at Malacca. These filaments display much irritability on the application of warmth, and will twist and turn about for a long period afterwards. They are named *Naga-pusing* by the Malays, which signifies "*to turn or twist round.*" Each filament is covered with a very minute pubescence. They appear to be the awns probably of a species of antihistria. They are used by the natives, in form of decoction, as an external remedy in eruptive diseases.—*From Mr. G. Bennett's MS. Journal, November 7th, 1830.*

ON FAILURES IN LITHOTOMY.

[Concluded from page 784.]

THE four following cases are not failures, though approaching that way; and they are, perhaps, sufficiently interesting in some other points to be recorded. The two first will further show how prone the mucous lining of the bladder is to inflame from rough sounding, though accustomed, with impunity, to bear the irritation of the stone. They also furnish examples of a sacculated stone left in the bladder, of hæmorrhage during and after operation, and of part of the bladder contracted round the stone.

CASE IX.—*Peritonitis, excited by long-continued attempts to find the Stone with the Staff before Operation. Two Stones; one sacculated,—a piece left in that situation safely.*

Garret Ward, Infirmary.—I performed lithotomy, February 19, 1817, upon — Hollday, of Nailsworth, a man seventy-three years of age, but of good constitution. There was considerable difficulty in feeling the stone with the staff, and attempts were indiscreetly made by many surgeons who were present, for a considerable time,—so that a fear was expressed that injury might be done to the bladder.

There was nothing remarkable observed in the operation, excepting that besides a large stone, the bladder also contained a smaller one encysted. I felt it projecting immediately above the pubes, where it was evidently firmly fixed. A long pair of dressing forceps broke off the point in the attempt to extract it from its bed, and the remainder was left behind, which the nail of the forefinger could plainly distinguish to be on a level with the sides of the cyst and the bladder.

No further attempts were made to dislodge this stone. The severity of the sounding, (which led to this decision,) was not forgotten. It was not desirable to add more irri-

tation to what had been already endured, and the stone was permitted to remain undisturbed in its habitation.

In the night, after the operation, he had severe pain just above the pubes, where was likewise some swelling; his skin was rather hot, the tongue somewhat furred. Pulse hard, and about 100. Thirty leeches were ordered to this part of the abdomen, and, when they ceased to bleed, cold rags were to be constantly applied.

In the evening, the pain was much diminished, and the swelling gone. No stools. Sulphate of magnesia every other hour, until the bowels should act. On the third morning, it was reported that he had vomited twice in the night; the belly was swollen more than before, very tender to the touch, and painful. Tongue furred, and pulse 111. He had taken two ounces of the sulphate, and had only one stool. Eighteen ounces of blood were taken from the arm, twelve leeches were applied to the abdomen. A purgative clyster was given; and when the leeches had ceased to bleed, a blister was directed, to cover the whole of the lower portion of the abdomen. He was placed in the warm bath after the leeches dropped off; the bleeding was considerable.

In the evening, he had had ten stools; his belly was much less swollen, he had been vomiting twice, the pain and tenderness much diminished. His pulse, 78, was reduced to 45. Tongue still furred, brown, but not dry. A clyster, with a little infusion of senna and sixty drops of laudanum, was ordered. On the following morning (the sixth from the operation) the swelling and pain of the belly were nearly gone; he had been sick once, had had five stools, pulse 73, slept four hours.

On the fifth day, in the evening, his pulse had risen to 88, and struck sharp and forcibly against the finger; his tongue was dry, and he was more restless; he had had one stool. Seventeen ounces of blood were taken from his arm, twelve leeches were applied to the epigastric region, where, he confessed, upon a close cross examination, that he felt some pain and tenderness. I say cross examined, because it was clear he wished not to be bled any more. He was desired to take sulphate of magnesia every hour until he was purged.

On the sixth morning his pulse was softer, though nearly as frequent; his pain, he declared, was gone; he had had twelve stools; his belly was no where tender; tongue more moist.

For the first time, this old man's countenance began to wear rather a haggard look, but his eye was still bright, he spoke firmly, and with confidence that he should recover. He was right. Strength was regained slowly, and he was ultimately discharged cured.

The foregoing case may be interesting, from the extent of the means successfully employed to remove the peritonitis in so aged a person, and from a sacculated stone being left in the bladder with safety.

In four days he lost thirty-five ounces of blood, had fifty-four leeches, and was freely purged;—moreover, he endured great pain. But here was a calm, courageous, and somewhat indifferent state of feeling, and if danger was apprehended, little was cared about the result. The patient had not the irritable quickness, the varying and wearing hopes and fears of the sensitive mind, which sees danger in every change, and suffers death many times before its real approach. Had he possessed the latter character, his chance of recovery would have been infinitely less; because the nervous power, which governs the frame, would have been exhausted by its own activity, and these vital actions which depend upon it would, in their turn, have ceased to be continued.

It is well, on this account, for the young practitioner to measure the moral, as well as the physical character of his patients, before he undertakes very decisive means. For as they are both mixed up together, to form what is called the constitution, this last can never be philosophically known without its component parts being somewhat made out; nor would the practitioner know how much it would bear, were he in ignorance of its true character.

I should not have dared to have taken such bold liberties with this old man's constitution, after it had endured a severe operation, had he possessed this quick, high temperament, sensibility, nervous irritability, or whatever it may be denominated, and which,—however it may be compounded of matter or of mind, and in whatever proportions,—feels every thing, yields to every thing, leads the body into all possible mischief, and, which is rarely remedied, though frequently increased, by bleeding or other lowering means.

I have chosen to consider the peritonitis as the effect of the long-continued and severe sounding previous to the operation, rather than of the latter itself, because there were no circumstances in it which indicated much violence or suffering.

Holliday was well when I last heard of him, and of course the sacculated stone had been in no way injurious. It is probable that a calculus, thus closely confined in a sac of the bladder, does little harm there; and when above the pelvis, it is not even likely to congregate more sabulous matter about it. If all this be true—if its close imprisonment admits not of that dreadful rolling of a loose stone in the bottom of the bladder, which irritates, inflames, and thickens the organ, and wears out the patient

with pain,—why is it thought necessary to ferret out the sacculated one with so much anxiety and positive mischievous violence?

CASE X.—Cystitis from Sounding—Hemorrhage during the Operation—Bladder full of Stone. From the case-book of Mr. R. Fletcher, junior.

"Charles Pride, aged 50, was admitted into the Gloucester Infirmary, with the usual symptoms of stone in the bladder; and, upon being sounded, a stone was discovered. His bladder was so exceedingly irritable, that each time after sounding, which was twice done, he complained of great pain in the lower part of his belly, with tenderness of it, and vomited repeatedly, and his urine deposited an unusual quantity of mucus: so far did this go, that both times he was obliged to be freely leeches, put in the warm bath, and purged. On account of this great inflammatory irritability of bladder, Mr. F. did not think it right to encourage him with much hope from an operation; but, at the patient's own request, he performed it. After cutting into the bladder, Mr. F. discovered with his finger, that there were two very large stones in it. There appeared to be no room for the forceps; and, from the size of the stones, it was deemed necessary to enlarge the opening in the bladder more than is usually done. Luckily, both the stones broke under the forceps, and were extracted by means of that instrument and the scoop, in somewhat less than half an hour. Their weight was about six ounces."

One other circumstance may be noted in this operation; the transverse perineal artery bled so profusely, that, from the size of the stream, it might have been mistaken for the pudic itself. It must have bled nearly a quart during the operation. It was tied, but, being in the track of the operation, the ligature soon slipped off, and the operation was continued without regarding it. From this cause, and the length of the operation, the man became low and cold, and required some brandy. During that evening he was comfortable. Early next morning he began to vomit high-coloured green matter, but was in no pain, except what was occasioned by straining to vomit, in the lower part of his belly and wound. His bowels not being open, he was ordered a powder of Pulv. Rhei, gr. viij. and Pulv. Zingib. gr. v. with an effervescent draught. On seeing him in the afternoon, it appeared that he had thrown up the powder, and could keep nothing on his stomach; another was ordered, but that he also rejected. An enema of Magnes. Sulph. and gruel was then administered, but it returned without any feces; several others were given him, but with the same want of effect. Pulse this day about 120, and feeble; tongue furred and white.

In the evening he complained of slight pain in the bottom of his belly, with slight tenderness. Twenty leeches to be applied to the part. He was very much depressed, and said he felt convinced he should not live till morning. In the morning it was discovered that the nurse had not applied the leeches, in consequence of the patient expressing a dislike to them. He had vomited greatly during the night. The leeches were applied directly, but did not draw much blood. A croton-oil pill was then given him, his bowels not having acted; this also he threw up. Pulse uncommonly quick, and very feeble; tongue brown. In the afternoon his pulse was imperceptible. Mr. F. ordered brandy to be given in small and repeated doses. In the evening his pulse gradually rose, and in the course of the night he had stools. He recovered.

Mr. F. considers the brandy to have saved him, by maintaining the powers of life until the bowels acted."

But for the brandy, given freely, he must have gone; so low was he brought in the first instance by the profuse hemorrhage, and the long-continued, teasing operation of extracting such a large mass of broken stones, and afterwards by the constant vomiting which succeeded the operation. But the hemorrhage might have saved him from the dangers of inflamed bladder and peritonæum, for the former was remarkably prone to inflame from the mere irritation of gentle sounding.

CASE XI.—Second Operation for Stone on the foregoing Patient. A portion of the Bladder contracted around the Stone above the Pubes.

Samuel Pride returned to the hospital, after his former discharge and recovery from the foregoing operation, with more stone formed in his bladder. He was repeatedly sounded, and a calculus demonstrated to be there; but no cystitis followed this preliminary operation, as was the case before the first operation of lithotomy, nor was the stomach disturbed by it, which was remarkably the case on the former occasion.

The operation was now performed a second time, and no difficulties experienced in the early stage of it. The muscles and prostate were freely divided, and the stone was just touched with the tip of the fore-finger, deep, but very high, and above the pubes. The discovery of its situation was not made very readily, and then the forceps could not dislodge it, for it was evidently grasped or enclosed by some fold of the bladder. A little suspension of all earnest efforts was allowed, with a hope that the contraction might cease, employing the time in very gentle efforts of the forceps, to catch the stone between their blades, but in vain,—they constantly slipped over a small portion of its

surface. The contraction around the stone did not relax,—the stone retained its situation.

Determined to use no violence, and to cease all farther annoyance of the bladder with the forceps, they were thrown aside. With the tip of the fore-finger of my left hand as a guide, the handle of the scoop was conducted to the lodging of the stone. By greatly depressing the handle, the extreme point of it was inserted over the calculus, and with a few gentle efforts—exactly after the sweeping or curved manner of the vectis working under the pubes upon the occiput of the child, in delivery—the stone was turned out of its enclosed or sacculated position, and fell to the bottom of the bladder, whence it was easily removed on a second introduction of the forceps.

The bladder was well cleared by the syringe in both operations. Discharged cured.

Where, as in the foregoing case, a stone lodged above the pubes does not come readily with the forceps, straight or crooked, the attempts with them should be discontinued, and some other contrivance adopted to dislodge the calculus, with the least possible violence to the bladder. Any slightly curved instrument, with a rounded edge and point, and of sufficient length, which could be passed over the stone and beyond it, would probably have the power of throwing it down to the bottom of the bladder, when the forceps might be safely resumed.

At this time, sixteen months after the last operation, Pride has again symptoms of a stone.

CASE XIX.—*Hæmorrhage during and after Operation.*

Infirmary, April 14, 1818. In operating upon a healthy young man, the stone broke under the first gripe of the forceps. Half an hour was occupied in extracting the pieces, which was done as gently as possible, sometimes using the forceps, and then the scoop. During the whole period a considerable hæmorrhage was going on, and when the removal of the stone was accomplished, I looked after the vessel. It lay deep under the pubes, and certainly was of considerable size, as it bled rather profusely. Though it was apparently too deep for the perineal artery, yet it could not be the pudic itself, for the blood gushed from a point directly under the arch of the pubes, and of course far from the ischium.

A large rectum bougie covered with oiled lint, held by an assistant, suppressed the bleeding. Seven hours after the operation, a rush of water forced out the instrument, which, it appears, was held improperly and slightly; the hæmorrhage returned, and he lost, in a few minutes, about half a pint of blood. The instrument was replaced. It was removed on the third day, and nothing

particular occurred until Sunday morning early, (sixth day from the operation,) when a profuse hæmorrhage took place, by which the patient lost perhaps three pints of blood: it ran through the bed, and the sheets and bedding were soaked in it. The instrument was again replaced, and well supported in its position, but was removed ultimately on Monday, the following day, the man complaining of exquisite soreness in the part. No farther return of the hæmorrhage followed, and he was discharged cured.

CASE XXIII.—*Example of an Irritable bladder, ascertained by the effects of sounding upon it; increased by rather more violence in operating than should have been allowed;—this tends,—abscesses in all possible directions. Case drawn by the Hospital pupil, C. P.*

“ Charles Matthews, aged twelve years, admitted May 23d, 1822, has been subject for many years to pains across the lower part of his abdomen, at the end of the penis, before and immediately after making water, which will sometimes stop suddenly. There is a thick deposit of mucus in the bottom of the vessel into which he voids his urine, which is often tinged with blood. On the twenty-fifth he passed a small stone about the size of a pea, which he threw away without having shown it to any person. (Mr. F. endeavored to sound him on the day of his admission, but found some impediment.) The stone, he says, was of a brownish colour. For two days after this he continued tolerably free from pain, though not entirely; his water was also clearer, and he seldom experienced a sudden stopping of the stream whilst making it. The symptoms gradually returned; the water, too, deposited a thick sediment as before.

June 4th.—Mr. F. to-day passed a small sound, and distinctly (as did several of the bystanders) felt a stone. No violence was used. During the evening of this day he was in considerable pain, attended with some tenderness of the belly.

5th.—This morning the sediment was considerable at the bottom of the pot, and streaked with blood. The boy appears of a very irritable habit generally, like his bladder; it was with the utmost difficulty that the sound could be passed, on account of his violent struggles. Mr. F. expresses himself unwilling to undertake the operation, in consequence of the great irritability of the bladder, and the bloody discharge continued since the sounding.

7th.—He has continued much the same, suffering greatly at times. He thinks he makes water at least twenty times during the twenty-four hours.

July 3d.—The sounding has been again repeated, and the same severe symptoms have followed. The performance of the ope-

ration has been again deferred in consequence.

15th.—The patient having lost the additional symptoms from the sounding, the operation was this day performed, after a declaration from Mr. F. that it was not a promising case.

The transversalis perinei was tied, in consequence of rather more than usual hæmorrhage. The opening into the bladder was made by the gorget, but upon grasping the stone with the forceps, it was found that the opening was scarcely large enough to admit of its passage, but some violence, though little, was exerted, when this difficulty was overcome, and the stone extracted. It was of considerable size, of a soft, white, gritty nature, similar to sand-stone, and possessed a volatile effluvia. Cap. Tinct. Opii, g. xxx. 12 A.M.—tolerably free from pain, except a slight smarting at the wound. Pulse rather full. 3 P.M.—patient asleep. 5 P.M.—said he was quite free from pain. The urine has passed freely through the wound. Pulse rather frequent.

16th, 10 A.M.—Slept at intervals of about half an hour during the night; awakened by the passage of the water through the wound.

17th.—Pulse increased in size and frequency; skin hot and dry; tongue slightly brown; mouth parched; slight tenderness upon pressure on the lower part of the abdomen; relieved by fomentations;—cap. Ol. Ricin. ℥ss.—repeated during the evening, the first dose not having the desired effect. Free from pain all night; pulse slower; still thirsty.

18th.—Is in much pain; there is tenderness about the abdomen; pulse quick; tongue very white; skin hot and dry; has had three stools, produced by a dose of castor oil, during the day. Ordered a warm bath. In the afternoon the pulse was slower, and the tenderness and pain about the abdomen relieved.

19th.—Free from pain; full and quick pulse; tongue cleaner.

21st.—Clay-coloured stools; other symptoms as yesterday.

24th.—Rather better; appetite improved.

25th.—Passed some water through the natural canal for the first time, to-day.

August 2d.—He has rigors; his appetite is gone.

5th.—In a very weak state, and rather feverish; wound discharges very freely, and somewhat suddenly.

12th.—Wound discharges profusely; Mr. F. said an abscess had burst; loses flesh very fast.

19th.—Better; upon pressure of the belly matter flows out largely through the wound, and apparently through the anus.

July 20th, 1823.—Several collections of matter have taken place, and burst exter-

nally in several places in the region of the bladder, above the pubes, previously to September 31, 1822. He has had, through the winter, a slight, short cough; no expectation accompanied it. His appetite and general health were for a time bad, but are now much improved, and the discharge from the wound, made by the operation, very small; though the urine has passed through the external wounds occasionally, above the pubes, where the abscesses burst, in three points, and where it causes a slight smarting pain.—Discharged cured."

The foregoing cases may assist in warning us generally against violence, and particularly from a rough treatment of the bladder, whether practised in the preliminary act of sounding for a stone, or in the operation of extracting it—that a gentle method is especially necessary in young children, as they bear not severe injuries with impunity—that an over-anxiety to possess a fragment of a stone, or an entire one sacculated, either temporarily or permanently, leads to irreparable mischief—that above the pubes a stone may reside with safety, and without inconvenience, in a sacculated or motionless state;—and, finally, to avoid the imminent dangers of a large stone, in the lateral operation, the surgeon should make it an invariable rule to ascertain its size before operation, that a judgment might be formed as to the necessity of a high one above the pubes, or the median section below their arch.

The danger from hæmorrhage can hardly be very great, since a fatal case was never known to happen in the whole course of my observation. One, however, whose experience has been far greater than mine, says that he has known patients lost repeatedly from that cause. Whenever it does happen that hæmorrhage from lithotomy destroys life—a fact to be granted upon the report of such undeniable authority—this unfortunate occurrence must arise from the knife or gorget acting too near the ramus ischii, an error which a surgeon of cool tact and experience would hardly allow himself to commit. A movement of the handle of the staff, towards the left groin, will carry the curve of the instrument, with the prostate, somewhat further from the ramus of the left ischium; and now if the gorget, (by far the safest instrument, for it cuts with precision,) is impelled forwards, with its edge inclined obliquely outwards, and downwards, the pudic artery itself is as safe as its neighbour on the opposite side the road.

Should the size of the calculus be not so very great as to forbid the operation below the arch of the pubes, (a circumstance itself of very rare occurrence,) and all the necessary circumstances and rules are observed by an experienced lithotomist—especially those concerning gentleness in execution—cutting

for the stone, in cases proper for the operation, is probably as safe to the patient, as a common amputation of the lower extremity.

With regard to the modern practice of destroying the calculus, of boring, splitting, and hammering it to pieces in its soft and tender residence—time only can discover the real value of the measure. On a first view—it must be admitted that first views are frequently erroneous—and on reading some of the foregoing cases, the reader may probably conclude, that if it were possible to select another spot, he would not choose the human bladder as a desirable situation for the operation of stone-breaking. They shew that the mere irritation of a sound—and of the closed forceps, in searching for a stone in the bladder, is sufficient to excite fatal inflammation in that organ—and, in cases where no evidence existed of previous disease in the bladder or prostate gland, which would have predisposed those parts to fatal disorganisation, under ordinary operating circumstances. Of course the work of death was effected by the irritation of the instruments employed in lithotomy. Will the lithotritic instruments, under similar circumstances, prove less irritating? Three cases out of seven, in one gentleman's practice, perished from inflammation of the bladder excited by them. Picked cases, paraded even before our best surgeons, do not furnish, either in kind or degree, the evidence necessary to decide upon the merits of lithontrity, and how far this innovation is likely to supplant or supersede the ancient and successful practice of lithotomy. Great and unbiassed experience of the most unquestionable kind—faithful and honest narration of facts, pleasant or unpleasant—of successes and failures, fairly intermingled alike—with a love of truth—can only decide the question. Evidence too, selected or not selected, should be taken with great caution, when proceeding from interested sources. Lithontrity is chiefly in the hands of those who either get their bread by it, or wish to do so; and it is too much to expect that nature should be the first to cry out against the gratification of her first wants. There is enough of evidence, however, to shew that the new operation bids fair to become a valuable auxiliary, if not a principal, in the treatment of calculi in the bladder; but the proper persons to mark the boundary of its merits, are those who get their bread from other sources. Surgeons generally, and especially hospital surgeons, whose operating habits, and greater experience in calculous affections, especially fit them for the important office of umpires, should no longer hesitate; for it is unquestionably both a matter of surprise and regret, that, up to this moment, not one case of lithontrity has been performed by a British surgeon, in a British hospital.

POISONING WITH PRUSSIC ACID.

Spring Assizes, Leicester, April 2, 1829.

(BEFORE LORD CHIEF JUSTICE BRISTOL.)

The King v. Freeman for the Murder of Judith Buswell.

[Concluded from page 766.]

Mrs. Elisabeth Biggs, examined by Mr. Clinton.—Is wife of last witness. On 11th February she retired to bed about eleven o'clock; saw the deceased after she went into her bedroom; the deceased brought the child to her; heard her go up stairs; heard her door shut; had not observed any thing remarkable in her manner that day; was called up the next morning at seven o'clock by her husband. He went to let the work-people in. He called loudly to the deceased; he then called her, and she got up directly. She went directly to the maid's room; the door was latched, but not fastened. On going into the room she saw that the young woman was dead; she was lying on the bed, with her head resting on the bed-board. Did not notice the bed-clothes particularly; she was covered to her breast. Did not notice the position of her hands, nor the position of the candlestick. She called out, and Mr. Biggs came into the room; no other person came. Mr. Biggs and herself went into Freer's room; Freer got up and came in. Was so much agitated at the time that she cannot recollect whether Freeman came into it or not. She returned to her own room. Catherine Beer came in half an hour or an hour afterwards; had not returned into the girl's room before she came. Deceased went about her work the day before, and had made preparations for the following day's work. She locked the doors, and placed the keys in their proper places; she had been brewing on the Tuesday. It was her business to light the fires, and she had made preparations for the purpose. Had no suspicion before this time of the deceased being pregnant; had not observed any young man keeping her company.

Cross-examined.—Sometimes goes from home; don't know whether any young man visited her during her absence—cannot say. Freer occupied one room, and Freeman another; the two rooms were separated by a partition; there was a door between Freer's room and prisoner's. Freeman, to go to his bed-room, would have to go through Freer's room; prisoner, to get from his room into deceased's room, would have to open three doors. When she went up stairs the door of the girl's room was latched, but not bolted. The usual way of shutting the door of the girl's bed-room made considera-

b'le noise; heard her shut it that night, at the time witness was in her own bed-room with the bed-room door open. The room occupied by herself and her husband was under the room in which Freer slept. The child was in the room with her: it was not well during the night. Has no recollection that she slept at all. The door which communicates with the girl's room into the passage opens with great difficulty. A person who wanted to come out of the inner room through Freer's room to open the door, would have great difficulty in doing it; it would occasion a great deal of noise opening it in the usual way. Could have heard the maid's room shut if it had been shut in the usual way, but not the other, when in her bed-room. Has not said that if either Freer or Freeman's room had been opened she must have heard it; has said that if the maid's room-door had been opened and shut in the usual way she must have heard it. No alteration has since been made in the doors. Deceased was brewing on the Tuesday, and went into the cellar on the Wednesday night to fill her barrels, on the night of her death; she did it in the course of the evening. Don't know how long she was in the cellar—perhaps five or ten minutes. The fish-sauce and drugs were not kept in the same cellar as the beer; there is no connexion between that cellar and the cellar where the brewing vessels were. The brewing vessels were kept in a different part of the cellar from where the drugs were kept. On Tuesday the brewing vessels were removed into another cellar. A person could get from the kitchen into the place where the drugs were; there was no lock to the door into it. Deceased complained slightly on Wednesday of being unwell. Does not recollect saying before the Inquest, if either of the doors had been opened during the night she must have heard it; cannot take upon herself to say she never said so; if she said so, she was mistaken.

Re-examined.—Her husband never left the bed-room from the time he came in at night till the next morning.

Catharine Beer examined.—Went to the last witness's house on the 12th February, at a little before eight; was sent for to attend to the deceased. Went there as soon as she was liberated from Mr. Price's. Got to Mr. Biggs's a little before eight. After being there a short time, went up stairs with Mrs. Biggs into the deceased's room; saw the deceased; she was quite dead; she was lying on the bed lengthways, with her head a little sideways against the head of the bed-board. The bedclothes were quite straight, they came up to her breast; her hands were under the clothes; she had only a chemise and a cap on; her day-clothes were on the bed, quite straight. She turned the bedclothes on one side, and found a bottle; it

was a small phial bottle. Mrs. Biggs standing at the door when she found it, she gave it to Mrs. Biggs; there was a white piece of paper round it when it was found; there was a cork in the bottle. Mr. Paget saw the body before she went. She removed the chamber-pot, which stood in her way; there was a quantity of hair in the chamber-pot, as if the deceased had been combing her head; there were two combs on the dressing-table; there was a small flat candlestick in the chair by the bed-side, the candle was out of the socket, and lying on the flat part of the candlestick. She laid the body out, and went on the Monday following to wash the linen and examine the bed more particularly; between the two top blankets she found six napkins and an apron. Is a married woman, and has had experience; supposes deceased put them there in case any thing happened to her in the night. Deceased might have put them there for her use, in case of a miscarriage, or any mishap. She moved the chamber-pot, and put it under the dressing-table; did not take it out of the room.

By the Judge.—The napkins were between the two top blankets; they would have been of use in case of excessive flooding.

Cross-examined.—Cannot positively say what time it was when she went; saw Mr. and Mrs. Biggs when she got there. She came to do the work of the house for Mrs. Biggs; saw prisoner in the kitchen; he did not stay many minutes after she got there. Did not see Mr. Paget; he had gone; he did not come again while she was there.

Mr. Thomas Paget examined.—Is a surgeon in Leicester. Was called to Mr. Biggs's house on 12th February, at half-past seven in the morning; went into the deceased's room, and found her lying on her back, with her head resting on the back of the bed-board. She was dead. Judging from the rigidity of the muscles, she seemed to have been dead four or five hours. Did not stay many minutes: did not remove the bed-clothes; did not turn them down; told them to let the things remain as they were, and inform the coroner immediately. Returned about four o'clock in the afternoon; the room was in the same state as in the morning; the deceased was lying in the same form, with the exception of her left hand being nearer to her stomach. Proceeded, together with Mr. Wilkinson, another surgeon, to examine the body; found the body in a state of freshness; attributed her death to her stomach containing a great quantity of prussic acid; the contents of her stomach were strongly impregnated with prussic acid. She was between six and seven months gone with child; the child was recently dead.

Cross-examined.—From experiments which witness has seen tried on animals, thinks it is possible she might have had the power of corking the bottle.

Re-examined.—The operation of prussic acid is always calculated by seconds. Cannot tell how long half an ounce would be in its operation upon the human species; it would operate sooner upon brutes; has seen a small dog rendered insensible in ten seconds by the same quantity the deceased is supposed to have taken; has also given a cat half the quantity, which he conceives fully adequate to her frame; she was thirty seconds before she fell insensible. Another cat, to which a quarter of the quantity was given, fell insensible within twenty seconds. Mentioned this as shewing the irregularity of prussic acid in its operation; the two doses were out of the same bottle; shewing its effect on different constitutions. The last-mentioned cat was a stronger and larger cat than the one which took thirty seconds to be rendered insensible.

By the Judge.—The animal appeared conscious of what it was about till the moment it was seized with convulsions. Cats and dogs walk about the room for several seconds after having taken it, till they are seized with convulsions. Thinks deceased might have had knowledge to cork the bottle after she had taken the poison; thinks it is *possible*. Cannot form an idea as to that probability. Smelling the bottle will produce sickness and insensibility; in some people it will produce a sense of sickness, and in others insensibility. Its force would not be weakened by being kept in a dark place a fortnight; thinks not. Druggists are obliged to leave it and other poisons accessible to their apprentices, for making up of prescriptions. Some of the experiments spoken of were made with the prussic acid that remained in the bottle.

Edward E. Wilkinson.—Is surgeon to the Leicester Infirmary. Was with the last witness when the body of the deceased was opened; concurs with him in his opinion as to the cause of her death. Is not able to form any opinion of the quantity of prussic acid taken into the stomach. Saw the chamber-pot; a small piece of leather in it; it appeared as if it had been tied round the top of the bottle. There was likewise a small string, which seemed to have been used for the purpose of tying the leather round the neck of the bottle. Was present when experiments were performed on the Wednesday.

Cross-examined.—The piece of leather was found in the pot; did not perceive there was any sickness in the pot; it was past four in the afternoon when he saw it; should think smelling prussic acid would produce faintness. Has seen experiments tried this morning. If deceased took four drachms, should think she *could not* have power to cork the bottle. Saw a dog take four drachms; it died in eight seconds. From what remained in the bottle produced, should

think four drachms were taken by the deceased. Never heard prussic acid being taken to procure abortion; it might be possible.

Dr. Freer examined.—Was present at the time Dr. Macauley made experiments, the day before yesterday, with the acid found in the bottle. Has been in practice, as a physician, twenty years. Prussic acid is the most violent poison that is known; thinks its immediate effects would be in proportion to the strength of the dose administered; by being exposed to the light it might lose some of its effect; saw experiments made with fresh acid and the acid found in the bottle; it varied very little in its effect from the fresh. Sixty drops is a drachm. Thinks that after three or four drachms had been received into the stomach, a person would not be able to do the most trifling act—certainly not. Thinks it *impossible* for a person, after having taken such a quantity, to put a cork into a bottle.

Cross-examined.—His judgment is chiefly from analogy. Saw some experiments tried upon dogs the day before yesterday; never saw any experiments tried before. There were seven experiments; lays most stress upon the sixth experiment; four drachms and a half were given to a dog, and its effect was almost instantaneous. In his opinion, three seconds had not elapsed before the dog was perfectly insensible; it was a sort of terrier—a small one. Should imagine its operation upon the human species to be equally as speedy as upon brutes. Its operation might vary according to the constitution. So large a dose was sufficient to destroy any constitution. Never attended any person supposed to have taken it; have seen it administered in a small dose as a medicine.

Mr. Paget recalled.—Has seen the opinions of five medical men—Drs. Paris, Couquest, Addison, Morgan, and Babbington, jun.

Dr. Freer recalled by the Judge.—A dog which had taken twenty drops, in five or six minutes recovered. The last experiment which was performed was giving this identical dog forty drops more; in twenty seconds he fell howling; in thirty-five seconds he became insensible, but still breathing; in one minute he was gasping; in a minute and a half worse; in two minutes he appeared at his last gasp; in three minutes and fifty seconds he again gasped; by five minutes he was dead. Experiment No. 6, four drachms and a half were given; in four or five seconds the dog was insensible and dead. No. 3 was a large dog, and double the size of the other; four drachms were given to him; half was lost in forcing the animal to swallow. He was a large setter dog. In thirty seconds he staggered; in forty seconds he fell; in one minute and a half dead. The immediate effect of the poison would depend

upon the dose taken. If food was in the stomach it would certainly make a difference; if it was a small dose, it would retard the progress of the poison; if it was a large dose, it would make little or no opposition.

Mr. John Needham examined.—Is a practising surgeon in this town; was present at the experiments to which Dr. Freer has spoken, and took the minutes; concurs mainly with him in what he has said; each animal was in a greater or less degree affected in a few seconds; one fell in half a minute. The acid taken by the deceased produced insensibility equally at the same time as the fresh, but it did not occasion death so immediately. Deaths happened at forty seconds with the fresh, and at sixty-five with the other. The animals appeared in great distress, and endeavoured to eject. Thinks the acid was deteriorated by the light. The comparative effect was precisely the same; insensibility was produced nearly at the same time in both the dogs. Should think it was *most improbable, and next to an impossibility*, that the deceased could have had the power of corking the bottle after taking the prussic acid, and put her hands under the clothes. Comes to that conclusion from the experiments he has made.

Cross-examined.—One dog had forty drops and one twenty before they fell. Dogs require the same doses in other medicines as human beings do. Cannot say as to the effect of the poison. Saw one experiment made upon a horse. Six drachms were administered; it began to be affected in a minute; fell in two minutes; was perfectly insensible and dead. Its heart was beating. The heart beat many minutes after it ceased to breathe; it was full a minute before it was affected at all. Thinks the horse would take strong poisons without being affected; might take half an ounce of arsenic.

Mr. Thomas Macauley.—Is a surgeon in this town. Was present with Dr. Freer and others when the experiments were tried. Concurs in the opinion they have given as to those experiments. Received the bottle containing prussic acid, found in the bed, from Mr. Owston, previous to commencing experiments. Measured the quantity of the acid; there were more than three drachms, but less than four; about three drachms and a half; eight drachms is an ounce. Some of the experiments were made with the identical acid that remained in the bottle; there was a difference in the acid taken from the bottle and the fresh acid; it was very trifling. Has made previous experiments, without a view to this transaction. Without denying the possibility of it, thinks it *extremely improbable* that deceased could have corked the bottle; and, from what he has read of the opinions formed by eminent medical writers, thinks it *impossible* it could be done, the operation having been done in the dark.

Has tried experiments on dogs and cats; its operation depends upon the dose; has given five, ten, and twenty drops; some have fallen directly, and some have walked after it for a short time. Don't know what quantity deceased took. Has seen dogs walk moderately well after a small dose; never saw one walk after a large one.

Elizabeth Neale.—Lives servant to Mr. Cox, a baker, in Leicester. On the 10th of February went to Mr. Biggs's shop for a bottle of cowslip wine; it was a little before ten o'clock. Saw prisoner just inside the door. Freer was on the other side of the counter; asked Freer for what she wanted in Freeman's hearing; he asked Freeman to fetch a bottle out of the cellar; he said he should have to go into the kitchen for a light; Freer said he would fetch a light for him; prisoner said he would try to find it in the dark; Freer then said he would get a light, and went for one. There was a gas-light in the shop. Freer went into the kitchen for a light; he was absent a minute or two. Freeman went round on the other side of the counter to a writing-desk; he stooped and reached out a small parcel wrapped in a light-coloured paper; it appeared as if he reached it from under the desk. It appeared a small parcel; the shape of it appeared like a bottle—quite a small bottle; the paper was screwed at both ends; he put it into his pocket. Freer was out during the time; when he came back he gave the light to the prisoner, and he went and fetched the wine.

Cross-examined.—Saw the prisoner take the paper parcel out of the drawer on the Tuesday night; lives near Mr. Biggs; cannot tell whether the prisoner was always there by himself; has gone in sometimes and found him alone. Prisoner took a small book out of the drawer at the same time that he took the bottle; mentioned the circumstance to her sister same night. Prisoner did not read the book; he just looked into it, and then put it into his pocket.

Re-examined.—It appeared a smallish book, with a dark cover; he put it into his pocket, as well as the parcel.

By the Judge.—Should not know the book again if she saw it.

Ann Bunwell.—Is mother of the deceased. Lives at Bruntingthorpe; remembers Thursday, the 12th February; saw prisoner on that day; he brought a note from Mr. Biggs between ten and eleven that morning; he said it was about very bad news—shocking indeed; desired him to read the note. (The note was read; it was respecting deceased's death, and stated that an inquest was to be held.) Prisoner told her that deceased went to bed about half-past eleven o'clock; that the watchman called the man in the house up about a shutter. Prisoner said he wished the body to be fetched away, to prevent a coroner's inquest; he said, if there

was one, perhaps some one or other would wish to have her opened; he said to her, "You would not like that?" He said no more to her; she went down the garden, crying "her poor girl was dead."

Cross-examined.—Recollects the words perfectly. Was examined by the coroner; told him the words used by the prisoner; it was after the deceased was buried; the words are as fresh in her memory now as they were when she was examined. The words the prisoner told her was, "that he wished the body taken away, as it would prevent the inquest."

By the Judge.—Prisoner said, "I wish the body fetched away."

Dorothy Jaques.—Lives at Bruntingthorp; knows deceased's mother; saw her on 12th February; heard her go down the garden crying out that her poor girl was dead; went into the house; prisoner was in the house, standing against the door; said to him, "Is it Judith that is dead?" He said he did not know; it was her that was living at Leicester. He said, "do you think they could fetch the body away to-day?" She answered that she thought it impossible. He said, if it could be done he should think there would be no need of a coroner's inquest upon the body.

Cross-examined.—Did not know that deceased was called Mary in Mr. Biggs's family

Elizabeth Wallace.—Is sister of the deceased; lives at Bruntingthorp; saw prisoner on Thursday, the 12th February; it was near eleven in the morning, in her mother's house. Her mother came to tell her. Had some communication with prisoner when she went in. Her mother was not present; she was looking for her father. Prisoner asked her whether she was a sister of the deceased? She answered, yes. He then said, "No doubt she has gone to a happier world, poor girl." He said she lay with her head on her hand, with a smiling countenance, as if she was asleep. She asked him if he was the first person that entered the room? He said no, there were three or four before him; he was in bed; Mr. Biggs went out, without coat, waistcoat, or hat, to fetch a surgeon, but she was quite cold. He said he did not think she was in bed till half-past eleven; that the man in the house was called up by the watch at twelve. She asked him if he heard any thing of deceased in the night? He said, no. She asked him if he was near her? He said, "Yes, only a wall parted us." He said he thought it would be the best way to fetch the body away, as it might prevent a great deal of trouble both here and there.

John Buswell.—Is father of the deceased; saw the prisoner at his house on the 12th February, in the morning; prisoner asked him if he thought he could fetch her away? he asked him if he would give him orders to

have a coffin made? He said he could get one knocked up in Leicester in three or four hours.

The case for the prosecution having closed, the prisoner was called on for his defence, but he declined making any.

The following witnesses were then called in his behalf.

Thomas Freer.—Is shopman to Mr. Biggs; knows the prisoner; remembers the night before the young woman was found dead in her bed; she slept in a room next the landing-place; the door from the landing-place made a noise in opening and shutting; there was a door to the prisoner's room which he could shut or fasten as he pleased; took one candle for the purpose of lighting both to bed; candle was placed on a chair which stood in the door-way; if prisoner got into bed first, he shut the door and pushed it farther into the room; if I got into bed last, I put out the candle; if he went to bed last, he did. On the 11th February I got into bed last. I went to bed between half-past ten and eleven; I left the servant girl in the kitchen; don't know whether Mr. and Mrs. Biggs were up or gone to bed; was disturbed by the watchman rapping at the front door; I got up; he told me that the cotters of the windows in the next shop were loose. I asked him what o'clock it was; he told me it was twelve. Mr. Biggs had the shop next door then, and has it now. I went to bed again directly, and slept till I was called up about seven in the morning. I heard the workpeople rapping at the door. I heard Mr. Biggs call the girl. I did not get up directly; did not hear any noise that alarmed me. Mrs. Biggs came into my room and told me the servant girl was dead in her bed. As soon as Mrs. Biggs was gone out of the room, I got up and dressed myself. Prisoner also got up. Myself and prisoner went together into the girl's room; both came away together. The door of the girl's room made a noise in opening and shutting. Has been into the room since; observed the door shut easier; it was on the Friday evening, after I was liberated from prison. If the prisoner had got up in the night, he must have opened the door to have come into my room, and must have moved the chair; it stood so that he could not have come out of his room without moving it. If he had opened the door and passed through the room, and had opened the girl's room, I must have heard him. He did not come through; I heard no noise; I found the doors, when I got up in the morning, the same as I had left them. The prisoner had complained of the tooth-ache; I supplied him with something for it. I got out of bed on two occasions, and gave him laudanum, which I had in a drawer; don't know what articles he made use of for the tooth-ache; I gave him laudanum. On the night in question the watchman called me; I spoke to him from the window; after

that I heard the clock strike one, but I did not hear it strike two; the partition door was shut on that night; the prisoner put it to in the usual way; I am sure it was shut. I don't recollect telling Mr. Macauley the door was open; I said it was not fastened; I do not recollect saying it was open. I told Mr. Macauley it was put to. I supposed it was shut; did not tell him it was open—that it was put to; it was put to, and I would say shut. I believe it was not open. I will swear it was shut; the chair was put in the door-place of Freeman's room. Has seen how the prisoner and deceased lived together; did not form any opinion, from what he saw, that there was any thing particular between them. Believes that he never said that the young man was connected with her; sure he has not; does not recollect in any instance having said so.

(The short-hand writer was instructed to take the remainder of the examination.)

Q. Do you remember speaking with Freeman one evening about taking liberties with females, when something was said about the servant girl?—A. Yes; it was on that evening I had some conversation with him about his having some connexion with her. Q. Did you use the expression that it would be easy to come round the servant?—A. I said I thought it would be easy to come round her at first, but I refused to have any thing to do with her at all. Q. After that, had you any conversation with him about giving a drug to that young woman?—A. No. Q. Was not that some few days before the girl died?—A. No, but it was not very long? Q. Did he tell you at that time any thing about a drug producing any effect upon a woman?—A. No. Q. Nothing of the sort?—A. Nothing of the sort. Q. Did he not tell you that you were a fool, and that you knew nothing about it?—A. No. Q. Did he say that to you at no time?—A. No. Q. Now I have asked you whether you stated that you thought there was some truth in the account that Bankin had given, and whether the boy did not say that he had made use of the words, and that it was the truth?—A. Yes. Q. You said he denied that it was the truth?—A. Yes. Q. Pray did you always give the same account before the magistrate?—A. I cannot say that I did in the first instance, because I did not at first understand the lad whether he admitted it or not; but when I came to recollect, he did not admit it. Q. Will you tell me the words that he used?—A. He said, "No, Freer, it was not so." Q. But could that leave a doubt upon your mind whether he admitted it or not?—A. I did not catch it distinctly at first, but still it was what he said. Q. When did you first catch it distinctly?—A. I can scarcely tell; part was said in my hearing, and part was not; I was called, at the instant he was speaking, into the shop, to wait upon a customer. Q. How came you to recollect, then, that he said, "No, Freer, it was not so?"

—A. I can scarcely tell; but he did say those words. Q. How can you tell that?—A. Because I have thought upon it since. Q. Where did the conversation take place?—A. It was in the back-room at the shop in King-Street. Q. Do you tell me the words again that he said?—A. "No, Freer, it was not so." Q. What had you been speaking of, that made him say that?—A. I said, I thought there was some truth in what he had said to Bankin. Q. What did he say to that?—A. "No, Freer, it was not so." Q. I thought you said he denied he had used those words to Bankin?—A. No. Q. He only denied, then, that it was not true?—A. Yes. Q. Now do you mean to swear, that when he used those words, "No, Freer, it was not so," that it left on your mind any doubt whether he meant to deny the truth of the statement or not?—A. Yes, I did think so. Q. You mean to swear that?—A. Yes.

By the Judge.—Did you ever suspect this young woman was in the family way?—A. I did a short time before the circumstance of her death. Q. How did she take the liberties of this young man before you?—A. She was displeased at them.

Mr. Thomas Cooke.—Is an architect [a plan is produced]; examined the girl's bedroom door; to shut the door so as to bolt it would require force; it would latch pretty easy. Examined Freer's door; it had a lock upon it, which appeared to have been on several years; the key would not turn; could not open and shut the door without making a noise.

Cross-examined.—The door might be opened by a person in the inside, but not without making some noise; opened it himself; it might be heard by a person listening not far off, but thinks it could not be heard in Mr. Bigg's room.

Reverend Jerome Dyke.—Lives at Babbage, where prisoner's father lives; knows prisoner; he is 17 next October; never heard any thing amiss of him; has seen him at church; he seemed attentive; he was at home last Christmas for a short time.

Reverend Samuel Allen.—Keeps a school at Hinckley; prisoner was two years and a half at his school; he quitted it on his going to Leicester; has been at Mr. Bigg's at different times; has known him six years as a pupil; he was of an amiable and humane disposition.

The evidence being closed on both sides, the Judge recapitulated to the Jury the various facts disclosed in the course of the trial; after which they deliberated for a few minutes, and returned a verdict of—*Not Guilty*.

NOTICE.

It is not convenient for us to comply with the requests contained in the letter addressed to us on the 9th instant.

W. WILSON, Printer, 57, Skinner-Street, London.

THE
LONDON MEDICAL GAZETTE,

BEING A
WEEKLY JOURNAL

OF
Medicine and the Collateral Sciences.

SATURDAY, SEPTEMBER 24, 1831.

DR. PHILIP'S REPLY

TO
DR. PROUT'S PAPER IN THE LAST
NUMBER OF THE MEDICAL GA-
ZETTE, ADDRESSED TO THE EDI-
TOR.

—
*To the Editor of the London Medical
Gazette.*

SIR,
As Dr. Prout declares that his only ob-
ject is truth, I cannot exactly under-
stand what he means by his threat to
"dip his pen in gall, and spare me
not." This expression, indeed, was not
necessary to indicate the spirit in which
his rejoinder is written. All this, I con-
fess, surprises me. It places its writer
in a point of view in which I have not
in any degree been accustomed to re-
gard him. I have no wish that he should
spare me: let him use his best endea-
vours: he requires them.

Then, he did not expect such an at-
tack from a person with whom he was
"on friendly terms." Are friendly
terms inconsistent with the expression
of a difference of opinion? I believe it
will be admitted that there has been no
defect of courtesy on my part. Besides
the gannet was thrown down, not by
me, but Dr. Prout. I only accepted
the challenge: he says he meant it not.
Then his language should have been
different. I am not accountable for its
errors, errors which I have pointed out,
and from which he has not in any de-
gree vindicated himself.

He says, indeed truly, that I ex-
pressed my sorrow that I had mis-
understood him, but does he give
any satisfactory reply to the state-
ment which founds that misunder-
standing on an error of his own?

199.—VIII.

In reverting to this subject, I would
ask any reader if, from Dr. Prout's ac-
count of the conversation referred to—
namely, "I have seen the Doctor, and
succeeded, I believe, in *convincing him of
his errors*—on some points at least," he
would understand that I had only ex-
pressed my sorrow that I had misunder-
stood him, which was as likely to be his
fault as mine? He taunts me with
what he calls a "thrice-told tale*," after
having himself placed me in such cir-
cumstances as called for the repetition.
If he feels it a burthen, which may pos-
sibly be the case, considering the pre-
tensions he has advanced, it was he
himself, not I, that pinned it to his
back. I had no wish to make him my
"*homme affiché*," but I certainly did
wish to inform himself and others,
whom he might mislead, that a know-
ledge of physiology is not to be ac-
quired by the method he proposes.

He accuses me of having disregarded
his labours. With every part of his
published labours I am well acquainted;
and as far as they have been found
capable of a useful application, few,
I believe, have considered them
with greater care. Nor have I been
satisfied with this; but in the strongest
terms, both publicly and privately,
have recommended them to the atten-

* In accusing me of repeating the publication
of the results of my experiments, which for some
reason he seems to think so objectionable, it
would have been candid in Dr. Prout to have
stated the circumstances which called for it, and
those which obliged me, contrary to my first in-
tention, to confine the repetition to the results I
had myself obtained, both of which I have stated.
Besides, had Dr. Prout been as well acquainted
with my investigations as he appears to think
himself, he would have perceived that the present
is not a mere republication of what was before
published: I offer it to the public as a statement
of the results of the reflections they have sug-
gested, up to the present time.

tion of others. No feeling has ever interfered with the pleasure I have experienced in giving merit its due wherever it appeared.

To a high degree of the faculty of minute and laborious inquiry Dr. Prout has established his claim. Whether he is equally successful in his attempts at more extended views, the reader will judge. It is not of his labours, as he alleges, that I gave any opinion: I do not question his results, but what appears to me his erroneous application of them.

He says he has taken interest in my investigations. This I should not have suspected because there is not in his lectures the slightest trace of his ever having heard of them, although he is not unfrequently led to points which had been among their principal objects. He never, indeed, alludes to any of the laws peculiar to the living animal except as far as relates to the influence of the organic agent on its chemical processes. Does such physiology deserve the name? Nay, he talks as if the question at issue between us were merely of a chemical nature. The following sentence he applies to me, which on the present occasion is in every way applicable to himself alone. In making this application of it, I shall only substitute for the term which does not, one which does, express the subject of our discussion. I must beg the reader to excuse my speaking of any thing I have myself done in the terms in which Dr. Prout chooses to speak of his labours; whether his or mine deserve them, it is neither for him nor myself to determine. I say, then, of Dr. Prout, in the words he uses in speaking of me, "Now what I wish in return is, that the Doctor will do the same by me, and condescend to understand a little of my *physiology*. Whatever he may think of the matter, I can assure him that it will furnish him with a vast deal of curious and important information, which he will not be the worse for, and which he cannot hope to procure from any other source. Indeed, if he wishes his observations to have any weight with the world, he must follow this course, or otherwise shew that he knows a *little*, at least, of the subject on which he pretends to give an opinion *."—I am, sir,

Your obedient servant,

A. P. W. PHILIP.

Cavendish-Square, Sept. 21, 1831.

* Dr. Prout talks with something like contempt

DR. PROUT IN REPLY TO DR. PHILIP.

To the Editor of the London Medical Gazette.

SIR,

As Dr. W. Philip has now, I presume, done his worst, it falls to me briefly to reply to him. At present, however, I am too much occupied to do this in detail, and therefore shall defer for a week or two what I have to say on the subject. In the meantime, I cannot help observing that I am very much disappointed with the Doctor's observations, for, instead of a liberal and enlightened spirit of criticism, having truth for its object, I can discover little more, on the one hand, than ignorance, either real or assumed, of the subject of discussion, and on the other a sort of ill-natured prejudice, determined to find fault with every thing;—in short, turn which way I will, the conviction is forced upon me against my inclination, that I am dealing with a man whose narrow views in physiology scarcely seem to extend beyond metaphysical subtleties, and in therapeutics beyond half a grain of blue pill.

I had intended to say nothing more

of what he calls "wordy disputes;" yet it is to the verbal part of my objections alone, and that very partially, that he even attempts to reply. The term, wordy dispute, is generally applied to those disputes in which words are mistaken for things, but not to discussions respecting the meaning of terms. Dr. Prout, whatever he may think, will find that the best writers are most particular in this respect; and how should it be otherwise? Is not language the vehicle of our ideas, and must it not depend on the accuracy of our terms whether we inform or mislead? I cannot help thinking that the manner of Dr. Prout to his new opponent is misplaced. Could he borrow a little of his precision, it would be fortunate both for himself and his readers.

He says his subject is imperfect: this is no reason why his meaning should not be clear. His published lectures he now calls "the shadow of a shade;" but as far as this shadow tends to obscure the truth, it is a legitimate subject of criticism.

With respect to Dr. Stevens's paper, which, according to Dr. Prout, contains the germs of discoveries of the last importance to mankind, we cannot, of course, judge of diseases which we do not see in this country. It is possible that in some of them the circulating fluids may be so changed in the progress of the disease as to prevent the restoration of the vital organs. If so, as I have already explained, whatever corrects this state must be of great consequence in the treatment. Of the general application of Dr. Stevens's principles, he himself has, in the 748d page, given the practitioners of this country an opportunity of judging. I would recommend both to Dr. Prout and Dr. Stevens the excellent treatise of Dr. Hamilton on purgative medicines, which has the sanction of much time and extensive experience.

upon the profitless subject of metaphysics, but as the Doctor still continues to harp upon this string, I may as well observe, in addition to what has been already stated, that I had no occasion to use the term otherwise than in a general sense; had it been necessary, of course it would have been more precisely defined, and the subjects discussed, arranged under particular and appropriate subdivisions.

While on this subject, I may also notice, very briefly, the sense in which the term psychology was used; and this I do, not with the view so much of justifying the use of the term, as of shewing that it was not employed altogether at random. Whoever has attended to the works of the ancient philosophers, must know that the word *ψυχή* is employed by them in a variety of senses different from that to which it is usually limited by theologians. Thus the philosopher Salustius, in his little work, *Περὶ Θεῶν καὶ Κόσμου*, defines the word as follows:—*ἡ τοίνυν διαφέρει τὰ ἐμφύσια τῶν ἀνθρώπων, τοῦτό ἐστι Ψυχή*. Again, he says, *τῶν δὲ ψυχῶν αἱ μὲν εἰσι λογικαὶ καὶ ἀθανάτοι· αἱ δὲ ἄλλοι καὶ θνηταί. κ. τ. λ.** Thus comprehending under this term every species, from the highest or rational soul to the lowest agent or principle occurring in animated beings. Hence psychology, in this extended sense, may be supposed to differ but little from metaphysics, as formerly defined: and, indeed, if I mistake not, there is authority for this extended use of the term, or of its kindred term, *pneumatology*, among the older metaphysicians, were the point worth inquiring into, which it is not. If the Doctor did not approve of such a general use of these terms, which he evidently saw, it was his business to criticise them in the first place, and not, with his eyes open, run headlong into this metaphysical trap, and afterwards throw the blame upon me.

With respect to the abstract of these lectures, as published, I wish to observe that it was hastily drawn up by myself, and might, no doubt, have been better done. I was anxious to be as brief as possible, and consequently omitted many illustrations that might perhaps have been retained with advantage. However, the matter cannot now be amended, and I must abide by the con-

sequences. I may, perhaps, be induced to republish them in a *corrected* form, but many years must elapse before they will appear in an *extended* one. My object in publishing them at all, was, in the first place, to secure them, bad or good, as my own; secondly, to draw the attention of the public to what appeared to me to be a very important subject; and thirdly, to invite rational criticism.

In conclusion, I beg leave to state, in few words, what my notions with respect to chemistry really are, and which have been so strangely misrepresented by my opponent. With this view, I may premise, that, in common with every one else, I regard the laws of the living economy in a healthy state, in a state of disease, and as liable to be influenced by medicinal agents, as the three great and primary objects of the physician's attention, to which every thing else is, or ought to be, subordinate and auxiliary.

1. Of the auxiliary means to be employed for enabling us to arrive at a better knowledge of these laws, I regard chemistry as *one* only, (one of the most efficient, however, in many cases, and in some cases the only *one*) by which, in health, the nature of many of the operations constantly going on in the animal economy can be best investigated; by which, in disease, many deviations from these natural operations may be determined; and by which, changes induced in them by medicinal agents may be discriminated. Consequently,

2. By associating this chemical information with the actual laws of the animal economy, with the symptoms of disease, and with the effects produced by medicinal agents, we can often, in an *indirect* manner, contrive to get such an insight into the operations of nature as to be enabled to regulate them to an extent, and with a precision, that can scarcely be done by any other means.

So much for what chemistry *can* do; now for what it *cannot* do.

3. The laws of the animal economy, whether in a state of health, of disease, or as influenced by medicinal agents, are ultimate facts which we must be content to take as we find them, and which will never be explained by chemistry or by any other means. It is our business to study these laws and their consequences, and not to attempt to explain them; consequently,

4. Chemistry cannot be *directly* sub-

* *Περὶ Νοῦ καὶ ψυχῆς. Κεφ. η'.*

stituted for any of the operations of nature—that is to say, “we can no more supply by chemistry what is amiss or wanting in the animal economy, than we can remedy or supply an injured nerve or muscle.” I do not profess to know a single instance in which any medicinal or other agent can be applied *directly*, so as to operate in virtue of its chemical powers in the animal economy, by supplying what is deficient, or correcting what is in error*.

And here, in the last place, I beg particularly to remind my readers, that this was especially pointed out as the rock upon which most of those had split who had attempted to apply chemistry to physiology and pathology; and it is a remarkable fact, as I shall shew in my next communication, that, of modern physiologists, no one has more deeply involved himself in this radical error (or at least an analogous one) than Dr. Wilson Philip.

W. PROUT.

Sackville-Street, Sept. 21, 1881.

MEDICAL JURISPRUDENCE.

FURTHER OBSERVATIONS

UPON THE

DETECTION AND IDENTIFICATION OF ARSENIC IN COMPLEX ORGANIC MIXTURES.

BY ROBERT VENABLES, M.B.

Physician to the Chelmsford Provident Society.

THE medical jurist, in cases of poisoning, has so many difficulties to encounter, and so many objections to anticipate, that he who acquits himself with even ordinary credit has abundant reason for self-congratulation. None but they who have practically satisfied themselves of the fact, would credit the minute—I may almost say the evanescent—proportion in which poisons are usually found in the contents or tissues of the viscera of those who perish by their fatal operation. This arises from a variety of causes; but the two principal may be considered as vomiting and decomposition. By the former the great

bulk of the poison is ejected, and frequently lost before the medical jurist arrives, or has an opportunity of providing against such a contingency. Indeed, vomiting—at least spontaneous vomiting—occurs under circumstances, and probably in situations, which preclude the possibility of identifying the vomited matters*.

The decomposition of the poison may be either natural or artificial. Natural decomposition is the result of the mutual agency of the stomach with its contents, and the poison, upon each other. In some instances the poison is the sole active agent, the decomposition arising from its action (generally a corrosive one) upon the tissues or substance of the viscera. Artificial decomposition is caused by the injection of antidotes, medicinal or alimentary, either purposely administered or taken as food in the usual course. By these agencies the poison is so diminished in quantity, and so altered in both its sensible characters and its chemical constitution, as in no small degree to embarrass the medical jurist, and to render his duties not only intricate but awfully painful and distressing.

The two great difficulties, then, in the way of medico-legal analysis is the alteration in chemical constitution, and the minuteness of the quantity, compared with the bulk and complexity of the organic matters. The former may be easily obviated, because we can readily ascertain by experiment the nature of the chemical decompositions; and being thus acquainted with the alterations so induced, we can provide the means of remedying these inconveniences. But the minuteness of the quantity, compared with the bulk and complexity of the matters for assay, is a source of embarrassment against which we can oppose nothing but patience, assiduity, and the dexterity resulting from industry in the constant and habitual practice of medico-legal researches. Every practical means, therefore, of obviating these difficulties—though ever so limit-

* Acidity of the stomach, urine, &c. do not fall within my views. In some forms of dyspepsia, the influence of diet, and perhaps of certain medicinal agents, is remarkable; though scarcely sufficient to constitute an exception to the above observation, at least in the present state of our knowledge.

* In the case of Anne Reeve, detailed in a late number of this Journal, and who died from corrosive sublimate, it was stated that she had been sick in the privy on the morning of her taking the poison. But could the matter, allowing that it had been possible to collect and analyse it, be identified at the end of six or seven days, when I first saw her? Numbers of persons had access to the privy, and therefore the analysis, under such circumstances, would hardly have affected this case even as a corroborating fact.

ed in extent, is matter, not only of interesting inquiry, but in my humble apprehension, legitimate communication.

I know of no one who has laboured so successfully, or contributed so largely to every department of toxicology, as Dr. Christison. His work on poisons will prove a monument to his fame "more imperishable than brass;" nor will centuries, perhaps, suffice materially to alter, or add to, the stock of information he has already furnished. His directions for the discovery of arsenic and corrosive sublimate—two of the most important of the class of poisons, from the more frequent resort to their operation—are plain, concise, and in most instances, sufficiently delicate to enable but a moderate proficient in such researches to obtain clear and unequivocal indications of the presence of these poisons. The sources of difficulty, however, above noted, will sometimes, and in peculiar cases, present obscurity highly embarrassing to practised, and even accomplished operators. I need not here repeat Dr. Christison's mode of removing organic matters from solutions of arsenic, nor need I detail the subsequent process from precipitating the sulphuret of the metal from the purified solution to its ultimate reduction. The reader will find them fully detailed in Dr. Christison's work, or in my paper, inserted in an earlier number of this *Journal**. There are, however, some imperfections in this otherwise unobjectionable process, and which it is of importance, if possible, to remedy. One is, the occasional presence of organic products in intimate mixture or combination with the precipitated sulphuret; and from which, in some peculiar instances, this process will not wholly free it. This will give rise to empyrenma, which, when the quantity of sulphuret is minute, will render the subsequent sublimation of reduced arsenic precarious. In some cases it is utterly impossible to wholly deprive the solution of animal or vegetable matter, and it will remain, and some of it fall down in combination or mixture with the sulphuret. Another difficulty is, that unless very great care be taken in regulating and applying the heat, so that the sublimation do not begin before the flux has attained a sufficient temperature, a portion of the sulphuret es-

capcs decomposition, and sublimes, or sulphur alone sublimes, and when the crust of sublime arsenic is very minute, obscures the result. But a most important objection is, that the sulphuret cannot be forced to yield above a third of the arsenic it contains. "I have found," says Dr. Christison, "that three grains of sulphuret, prepared by passing sulphuretted hydrogen through a solution of the oxide, yield, when reduced by means of black flux, with the full red heat of a large blow-pipe flame, only 0.67, instead of 1.84, or not much more than a third; and that two grains of native orpiment, reduced with the soda flux, yield 0.424 instead of 1.226*." This, according to Berzelius, is owing to the arsenic being retained in the form of arseniuret of potassium or sodium.

It is probable that all the alkaline and earthy arseniurets are equally fixed under the elevations of temperature best suited to medico-legal researches. The metallic arseniates, however, are not quite so refractory, for most of them yield more than half their metallic arsenic. For instance, a grain of arseniate of lead ought to yield .218 of metallic arsenic; but Dr. Christison found, that when reduced with charcoal, it yielded only .120: still it appears, that while the arseniates of lime, potash, and soda, and according to Christison, the sulphuret of arsenic yield only about a third of the metal they contain, the arseniate of lead gives out *one-half*, +.011 of the metallic arsenic contained in the salt. Where the quantity in a medico-legal investigation is extremely minute, this is an object of great importance, because the distinctive characters of the sublimed arsenical crust are then rendered more obvious and sensible. But even the arseniate of lead retains on reduction too much of the metallic arsenic to be preferred as the preparation for reduction in medico-legal assays. As a point of preference, too, it presents no distinctive character to induce the medical jurist to select it. I have, after much and laborious inquiry, been induced to prefer the *arseniate of silver*, as superior to every other preparation, for the purposes of medico-legal reduction; and this for the following reasons. First, its bulk is sufficient to enable us to operate upon minute quantities with

* No. 137, July 1880.

* On Poisons, page 180.

infinitely greater ease and precision. Secondly, its superior specific gravity causes it to subside more quickly even from saturated saline solutions; and hence it is more easily and speedily collected. Thirdly, it parts with moisture more readily, and does not cake, or attach itself to the capsule with that obstinate adhesion which renders the collection of the entire sulphuret, under similar circumstances, so difficult; on the contrary, it is easily collected, and admits of being dried so thoroughly as to yield but little moisture. Thirdly, the salt itself presents an almost distinctive character in its brick-red colour. Fourthly, it yields on reduction (cæt. par.) nearly three times the quantity of metallic arsenic afforded by any other compound, (so far as I know) arseniate of lead being excepted; and nearly half as much more as even this salt.

The process, therefore, which I find to answer best is the following. Dr. Christison's directions are to be observed, and his plan precisely followed, till the sulphuret of arsenic is precipitated. The precipitate is to be allowed to subside, and the organic liquid poured off. The precipitate is then to be washed by the alternate affusion and decantation of distilled water after each subsidence. The sulphuret, after being thoroughly washed, is to be transferred into a deflagrating tube. When the quantity is very minute, its transfer is effected without loss in the following manner: diluted ammonia is to be added till the whole of the sulphuret is dissolved, and the solution poured into the deflagrating tube; the precipitating jar is to be washed out with distilled water, the washings being added to the solutions in the deflagrating tube; acetic acid being now added in excess, the tube, with its contents, is to be gently heated, when the sulphuret is immediately precipitated.* The acetate of ammonia is to be poured off, and the precipitate is to be well washed in distilled water; the water is to be poured off; the sulphuret remaining at the bottom of the tube is to be rendered as dry as possible, by placing the tube by the side of a stove†. Nitrate of potass

is next to be added, with which the sulphuret is to be deflagrated. By this process the arsenic of the sulphuret is peroxidated, and converted into arsenic acid, which unites with the potass set at liberty during the operation, and forms *arseniate* of potass. As soon as the nitrous acid, formed by the action of the nitrous gas (evolved by the decomposition of the nitric acid of the nitre) upon the atmospheric air is dissipated, and the tube has cooled, hot distilled water is to be added till the entire residue is dissolved. If the solution should be alkaline, which may happen if vegetable or other organic matters were present, in consequence of the formation of both carbonic acid and potass, or ammonia, a little acetic acid should be added, so as to render the solution perfectly neutral, or even very faintly acidulous. If the solution be now touched on the surface with a stick of lunar caustic, immediately a dense heavy brick-red precipitate falls down from the point of contact. The precipitate should be allowed to subside, and the caustic applied after each subsidence till the brick-red powder ceases to be formed. When the powder has subsided, the nitrous solution is to be poured off, and the precipitate is then to be well washed in distilled water till the washings, when evaporated upon platina foil, cease to leave any residue. The precipitate, which is arseniate of silver, perfectly pure, or nearly so, may now be transferred to a watch crystal, and dried either by the side of a stove or in a vapour bath. The dried salt is next to be mixed with boracic acid and recently ignited charcoal, put into a proper tube, and reduced. Towards the end, the reduction may be aided by the cautious application of the flame of the blow-pipe. By this means a well-defined crust of metallic arsenic will be found lining the upper and narrow portion of the tube; nor is there the slightest obstruction to the reduction from the presence of impurities*.

* It may appear that I have been anticipated by an intelligent, though anonymous writer, in the *Lancet*. Upon this subject I can only say that I had arrived at the conclusions now advanced before the paper on arsenic appeared in the *Lancet*, and was reluctantly obliged to defer their publication in consequence of other engagements, of an urgent nature, preventing me from repeating and varying the experiments so as to prove their accuracy and the correctness of my conclusions. But on reference to the paper, (*Lancet*, Jan. 2, 1831) it will be seen that the objection which ap-

* Boiling alone, by expelling the ammonia, would precipitate the sulphuret, but still not so completely as by adding acetic acid in slight excess.

† Ether frequently assists the drying of precipitates.

Here, perhaps, it may be asked, what is there to induce us to prefer the present to Dr. Christison's, if not less complex, at least less operose process? It will be seen that the present comprises every part of Dr. Christison's process to the precipitation of the sulphuret of arsenic, which he separates by filtration. Some of the sulphuret is lost on the filter; and it is often impossible, where the quantity is very minute, to remove the sulphate without at the same time bringing away with it some of the fibres of the paper or filter. This inconvenience, it is true, may be avoided by throwing the washed sulphuret upon a watch-glass or platina capsule, drawing off the moisture by the capillary action of cotton wicks, and then drying upon a stove. But then the sulphuret is so light and flocculent, and if there be the smallest portion of organic matter, adheres so tenaciously on drying to the capsules, that I question if it be possible, even with the greatest care, to collect it without some loss. But waving these objections, the mechanical intermixture of the fibres of the filter, and the loss in collecting, yet there is the sublimation, or at all events, the occasional sublimation, of sulphur obscuring the metallic crust; and the loss from the fixidity of the arseniuret, formed with the alkali of the flux, completely resisting the most powerful and efficient medico-legal means of reduction; and from which inconvenience nearly two-thirds of the metal is left in the flux, a matter of serious consideration when the quantity is very minute. All these inconveniences I have found to be obviated in a great degree by the additional steps recommended in the above process. The arseniate of silver is precipitated from a clear and perfectly transparent saline solution of but moderate density, and devoid of all obstructing impurities. The arseniate,

from its gravity, quickly subsides, thus admitting of being speedily washed and freed from all saline or other impurities: it is not adherent to the capsule because it is perfectly freed by the mode of preparation from all organic contamination. It admits of almost complete and entire reduction without the slightest impurity to obscure or obstruct the result.

With the view of putting the comparative advantages of the additional steps of this process to the proof of experiment, I proceeded as follows:—

1st. A solution of arsenic having been prepared by boiling the oxide of the metal in distilled water, the solution was allowed to cool, and then filtered. A portion was then faintly acidulated with acetic acid, and a current of sulphuretted hydrogen was passed through the acidulous solution. The resulting sulphuret was dried, a grain of which was divided into two equal portions; the one was heated with black flux, made on the moment by the deflagration of cream of tartar, with nitre, in the proportion of two parts and a half of the former with one of the latter. The other half grain of the sulphuret was put into a tube and deflagrated with nitre. The tube having cooled sufficiently, warm distilled water was added till the whole residue was dissolved. A stick of lunar caustic being now applied, the brick-red arseniate of silver precipitated in a very characteristic form. The arseniate was washed, collected, and dried. It was now mingled with a mixture of charcoal and boracic acid*. The sublimate from the sulphuret was certainly very clearly characterized, although it was surmounted by a very faint red ring, visible in some parts, but evanescent in others. The sublimate from the arseniate was equally clear and characteristic, but its extent and weight were

piles to Berzelius' process applies, at least in part, to that of this author—namely, attempting to throw down the sulphuret of arsenic from an imperfectly desalinized fluid. Dr. C. says, "the inconveniences of this process are the following: *the whole sulphuret is not always separated from the solution, because animal matter, as formerly noticed, possesses a solvent or suspending power over it*"—page 201. The objection then is, that in very strongly animalized mixtures the sulphuret does not separate; and is, therefore, consequently lost, or remains in the mixture. This objection does not apply to the mode which I advocate, because the previous application of nitrate of silver coagulates, and throws down such organic matters as resist the action of acetic acid.

* The boracic acid appears to me essential to increase the quantity of metallic arsenic sublimed. The first effect of heat is to evolve or separate arsenious acid, as explained in my paper published in No. 137, July 17th, 1830, of this Journal. The arsenious acid thus evolved is reduced by the heated charcoal, and metallic arsenic sublimes. But there remains behind, when charcoal only is used, a more refractory combination of arseniate, with arseniuret of silver. The boracic acid forms borate of silver, expelling the arsenious acid and the metal. The heated charcoal decomposes the former, and thus nearly the whole of the metallic arsenic is evolved from the compound and sublimed.

very nearly three times that from the sulphuret.

The circumstances here detailed are the most favourable under which a comparative experiment could be instituted. In order, however, to render the circumstances more precisely analogous to those attendant on medico-legal examinations, a very strongly vegeto-animalized mixture was made with blood, tea, cream, sugar, butter, milk, and pea-soup, into which a quantity of oxide of arsenic was introduced. This mixture was put into a flask, and well boiled, distilled water being frequently added, conformably with Dr. Christison's directions. It was strained through a coarse cloth, and then treated according to Christison's directions, with hydrochloric acid, nitrate of silver in excess, and subsequently with muriate of soda in excess, to precipitate the silver. It was then filtered, potass added in very slight excess; and it was, last of all, faintly acidulated with acetic acid. Sulphuretted hydrogen was then passed through till the sulphuret of arsenic was precipitated, which was then washed and dried. A grain of this sulphuret was then divided into two equal portions; the one half was reduced with black flux, prepared on the moment, as already detailed; the other half grain was put into a tube, and deflagrated with nitre; and the residue dissolved with warm distilled water. The solution was slightly alkaline; but acetic acid was added till it became perfectly neutral. Lunar caustic now threw down the brick-red precipitate as before, which was collected, washed, and dried. It was now mixed with boracic acid and recently ignited charcoal, and reduced in a tube. The sublimate obtained from the reduction of the sulphuret, although sufficiently characteristic, yet it was surmounted at its summit by a well-defined ring of red, perhaps half reduced sulphuret; while that from the arseniate was perfectly pure and uncontaminated, resembling exactly the crust obtained by the reduction of pure arsenious acid with recently ignited charcoal. In the former case, too, there was a degree of animal empyreuma, and which, without great care, would have been sufficient to counteract, or at least to obscure, the metallic characters of the reduced arsenic, even with so large a quantity as half a grain of sulphuret. The arseniate, also, yield-

ed very nearly three times the quantity of metal. But on oxidating the metal from each process, the oxide obtained from the arseniate was wholly soluble when boiled in a small flask with distilled water, and when re-precipitated from its solution by a current of sulphuretted hydrogen; the resulting sulphuret, when washed, collected, and dried, gave *all but* the equilibrium of half a grain when weighed in a fine balance.

The oxidated metal from the sulphuret, heated in the same way, did not afford quite one-sixth of a grain of sulphuret. But after boiling the oxidated metal from the sulphuret in distilled water, and allowing it to settle in a tube, a small residue was observed. This being washed, and nitre added, the whole being deflagrated, and applying a stick of lunar caustic to the solution of the residue in distilled water, sensible indications of the presence of arsenic were afforded by the precipitation of a brick-red coloured powder; and which, on reduction, gave a trace of metallic arsenic. Hence, then, it is evident, either that sulphuret of arsenic escaped reduction and sublimed; or, what is more probable, that a portion of sulphur sublimed, which, on the application of the heat for the oxidation of the metal, united with it, forming sulphuret; or both these causes may have operated in reducing the quantity of oxide obtained by the process for converting the metal into oxide.

Now let us examine the objections:—The idea of deflagrating the sulphuret originated with Berzelius, or at all events, was first publicly proposed by him. The same objection applies to Berzelius' mode of obtaining the sulphuret as to that of the author in the *Lancet*—namely, attempting to throw down the sulphuret of arsenic before the organic mixture or solution has been sufficiently freed from animal and vegetable matters, the solvent or suspending powers of which prevent the separation or subsidence of the sulphuret, and consequently the possibility of its collection for deflagration. By following Dr. Christison's directions for precipitating the sulphuret from a previously sufficiently purified organic solution, this objection is avoided. Dr. Christison, however, objects to the deflagration of the sulphuret, as being unmanageable in the hands of the unpractised. He says, "the deflagration of the sul-

buret, although, as Berzelius mentions, it takes place without flame when the proportion of nitre is large, I have found to be a precarious operation in the hands of the unpractised, who should never be lost sight of, at least in Britain, where nineteen-twentieths of medico-legal analysts are of this description*. But surely this is not a valid objection: any individual sufficiently versed in chemical manipulations to precipitate sulphuret of arsenic according to Dr. Christison's process, and to conduct the subsequent reduction, must be possessed of sufficient chemical address to manage the deflagration of half a grain of sulphuret with nitre in a tube. This objection, therefore, is invalid; but were it even as weighty as asserted, its advantages would outweigh any such consideration, because it affords several characteristic indications: first, the colour of the sulphuret; secondly, the phenomena on deflagration; and, thirdly, the brick-red precipitate with nitrate of silver, which has been considered as alone sufficiently indicative of the presence of arsenic; add to which, that we effect a solution freed from all obstructing impurities.

The process here detailed will only apply to arsenious acid and its soluble compounds. On reference to my paper in number 137 of this Journal, it will be found that nitrate of silver precipitates pure arsenic, and by single decomposition. Hence it is evident, that if arsenic acid existed in the mixture, or any of its compounds, the precipitation of the vegeto-animal matter by nitrate of silver would at the same time carry down the whole of the arsenic acid, while the fluid for assay would be thus entirely freed from arsenic, and of course afford no indications whatever upon applying sulphuretted hydrogen. In order to obviate this inconvenience, when the circumstances are such as to afford no clue to the preparation to be sought for, or even but doubtful information on this subject, I should advise the following, which I have found to answer under almost every possible contingency. It is a modification of one of Orfila's processes, and will apply, in its extended form, to every preparation of arsenic.

The contents and tissues of the

stomach, the solids being previously cut into small shreds, are to be well boiled in nitric acid till as much of the animal matter as possible has been destroyed, distilled water being added according to circumstances. It is now to be filtered, potass added in slight excess to the filtered fluid; and it is next to be acidulated with acetic acid, when a stream of sulphuretted hydrogen gas is to be passed through it*. If a yellow precipitate separate, it should be deflagrated with nitre, and treated as already directed in a preceding part of this paper.

By the boiling with nitric acid, not only all the preparations of arsenic, soluble in this menstruum, and water, are taken up, but by far the greater proportion of the organic matters are destroyed. The soluble preparations of arsenic pass through the filter, and are subsequently precipitated by the sulphuretted hydrogen†. Such preparations, however, as

* For the mode of managing sulphuretted hydrogen gas, &c. see the paper before referred to.

† Rose says that free sulphur is always deposited along with the sulphurets precipitated from arsenical solutions by sulphuretted hydrogen. If this proposition be well founded, it will readily account for the obscurity and obstruction frequently experienced in the subliming of minute quantities of metallic arsenic in the operations under consideration. It will also account for the yellow, or yellowish red ring, which I have already noted as occasionally surmounting the metallic crust obtained by the reduction of the sulphuret of arsenic by some of the preceding processes, and offers an additional reason for endeavouring to obtain a pure preparation of arsenic for reduction by the deflagration of the sulphuret. However, it may be observed, with respect to the assertion of Rose, "that the free sulphur is produced by the decomposition of the sulphuretted hydrogen which existed in the solution," that this decomposition is owing to the action of the acid, which he invariably uses for acidulating the arsenical solution, and which is the muriate, or hydrochloric acid. When the acetic acid is used for this purpose, there is never any separation of free sulphur, diluted acetic acid exerting no sensible chemical action upon sulphuretted hydrogen unless animal or vegetable matter be present; then free sulphur is deposited. If an acetic acidulous solution of arsenic, in distilled water, be precipitated by sulphuretted hydrogen, the whole of the precipitate is soluble in caustic alkali, or ammonia; nor will the slightest separation take place after weeks. But the case is different if animal or vegetable matter be present, or that the solution be acidulated with a mineral acid; then the alkali leaves behind a yellow residuum, which on being washed, collected, and dried, proves to be pure or free sulphur. Rose also states that the separation of the oxides, that is, the arsenious and arsenic acids, from each other, is attended with difficulties which are insurmountable. It may, however, be accomplished in the following manner: acidulate the solution, if alkaline, or if the acids be combined with bases, with acetic acid, apply nitrate of silver, which will precipitate arsenic acid only, because nitrate of silver does not singly decompose arsenious acid; the quantity of arsenic acid is then estimated by the

may not be soluble in nitric acid and water, remain upon the filter, consequently it becomes an object of medical jurisprudence to determine their presence. For this purpose the products retained on the filter should be collected and dried, and they should then be projected in small masses, or portions at a time, into a Florence flask, containing a tolerably large proportion of nitre in a state of fusion, continuing the heat. By these means only slight scintillations take place, and all the organic matter is destroyed, being converted into water, carbonic acid, potass, and ammonia. Any arsenic, under whatever variety or form it may have been present, is at the same time peroxidated and converted into arsenic acid, which, uniting with the alkali, forms a soluble arseniate. Nitrate of silver, applied as before recommended, precipitates arseniate of silver, which is to be reduced in the manner already explained.

Such are the methods which, after much inquiry, I have been induced to prefer for the detection of arsenic and its compounds in medico-legal inquiries. The first object is to obtain a solution of the arsenic, if possible. The next is to free this solution as much as possible from all volatile organized matter; because otherwise the resulting sulphuret is either retained in mechanical suspension, and therefore not separable without filtration, which should be avoided as far as possible, because in order to avoid loss, the whole filter, with its contents, must be deflagrated, and which renders the operation more intricate and troublesome; or which is of more importance as an objection is, that the sulphuret remains in solution in organic fluids, and therefore not precipitating, escapes analysis. When we can be certain that the arsenious acid is the form under which the poison has been administered, Dr. Christison's process is that by which the largest and purest proportion of sulphuret can be obtained. But under these circumstances the precipitated matters should not be lost sight of, for the arsenious acid is

occasionally decomposed, and converted into sulphuret of arsenic, by sulphuretted hydrogen found in the stomach, an effect very likely to result from the instant action of the poison upon the coats of the viscus. Orfila also says that the arsenious acid is liable to be converted into arseniate of ammonia by the putrefactive decomposition of the animal textures, which sets in at long intervals after death. In such circumstances, Dr. Christison's process would throw down the arsenic, in the form of arseniate of silver, along with the animal matter, and it would thus escape analysis, unless the precipitate were examined. The destruction of the animal matter by nitric acid will not precipitate any of the soluble preparations of arsenic, and will dissolve many of those which are insoluble in simple distilled water. It also often peroxidates the arsenious, converting it into arsenic acid, a preparation far more soluble than the former. "It is true," Rose says, "that the arsenious acid cannot be easily converted into the arsenic acid by means of nitric acid alone, but only by means of aqua regia*." If, however, the operator is desirous of converting it with certainty into arsenic acid, it is easily done by the addition of liquid chlorine; or still better, by transmitting a current of chlorine gas for ten minutes, and boiling to expel the excess of chlorine. There is also the additional advantage of destroying the colour of the solution by means of chlorine. There is one thing, however, with respect to arsenic acid, of which the operator should be apprised, that arsenic acid, as has been correctly observed by Rose, is precipitated by sulphuretted hydrogen gas far more slowly than arsenious acid; consequently, the action must be kept up longer, and the hydro-sulphuretted solution should be heated, to expel any excess of sulphuretted hydrogen. "Of all substances," says Rose, "that are acted on by sulphuretted hydrogen gas, arsenic acid is the one whose precipitation requires the greatest length of time. Besides this, a much greater quantity of the resulting sulphuret of arsenic remains in solution in the hydro-sulphuretted liquor than is the case when the arsenious acid is precipitated. The dis-

weight of the arseniate of silver, and which may be proved by subliming the metallic arsenic, weighing it, and adding to this weight the equivalents of oxygen, the sum of which will give the quantity of arsenic acid. The arsenious acid may then be separated, and its quantity estimated by well known processes, which it is needless here to describe.

* Page 190, Griffin's Translation of Rose's Manual.

solved sulphuret can, nevertheless, be *fully* precipitated, by exposing the mixture to a *very gentle heat till it ceases to smell of sulphuretted hydrogen**. Hence, then, when the preparation is the arsenic acid, or some of its soluble compounds, or that the operator has endeavoured to convert the mineral into arsenic acid, the solution should be heated to expel the excess of sulphuretted hydrogen, and sufficient time allowed for the separation and subsidence of the arsenical sulphuret. Even when arsenic acid is present, and which might be at once precipitated by the simple application of nitrate of silver, I prefer precipitating the sulphuret, because this, with the subsequent deflagration and reprecipitation, in the form of arseniate of silver, are so many distinct identifications of the poison, the ultimate reduction of which to the metallic state must remove every particle of doubt from even the most sceptical.

Although this paper is not calculated to simplify the processes already in use, neither is its tendency to render them more complicated, though it may render them more *operose*. Simplicity of analysis, with accuracy and delicacy of result, certainly constitute the acmé of perfection in medico-legal investigation; but we must be careful, that while sacrificing exclusively upon the altars of the former divinity, we do not excite the indignation and neglect of the latter. Accuracy and delicacy of result is the idol which I have worshipped in the construction of this paper, and I do not know that any chemical manipulations have been suggested which may not be readily performed by any one whose evidence upon questions of this description ought to be admitted in a court of justice. " 'Tis true," as Dr. Christison states, "and pity 'tis 'tis true," that nineteen-twentieths of the medico-legal analyzers in Britain are unpractised," and therefore frequently wholly incompetent to conduct such researches, as will appear from their clumsy detail of still more clumsily conducted experiments. This, however, is a defect beyond the reach of toxicology, because no process for investigation, however simple, will compensate the want of practice and experience. It is the defect in the administration of justice against which the

legislature is bound to provide, by associating with the district officers, charged with the primary inquiries in such cases, competent professional assistance. Under the present system, it may be fairly questioned whether *simplicity* be at all a desideratum, as the more difficult and intricate the processes of medico-legal analysis, the less the probability of such inquiries being either entrusted to, or undertaken by, druggists and grocers, or any other incompetent person who may choose to fancy himself a chemist because he has the effrontery to write this appellation upon his door, and can do so with impunity.

By the improvements suggested, the law would be more satisfactorily administered, and there would be fewer occasions of questioning the justice of verdicts or the propriety of punishment. It is surprising, and even painful to witness the medico-legal evidence occasionally advanced in courts of justice; and still more painful, to witness the impressions frequently made upon the minds of the judge, the jury, and the whole court, by the dogmatical delivery of opinions for which there is not the slightest foundation, and which but a very superficial cross-examination would suffice to shake to their very centre.

Chelmsford, August 20, 1831.

P.S.—In medico-legal analysis the solutions of arsenic should not be acidulated with a mineral acid, as the muriatic, because in passing a stream of sulphuretted hydrogen through a fluid so acidulated, a pale yellow precipitate of sulphur is thrown, and which may be mistaken for an arsenical sulphuret. The use of acetic acid is free from this objection, unless indeed, as before observed, organic matters be present in some quantity; but the additional management here recommended will obviate all difficulties arising from such an inconvenience. But it may be observed, that when the arsenical sulphuret has been dissolved by an alkali, there is no objection to its precipitation from the *filtered alkaline* solution by a mineral acid, because, under such circumstances, there is no risk of the precipitation of *free* sulphur.

* Griffin's Translation of Rose's Manual, pp. 200, 201.

FURTHER REMARKS

ON THE USE OF

CAMPHOR AS A LOCAL APPLICATION IN SOME DISEASES.

To the Editor of the London Medical Gazette.

SIR,

IN my late communications to you I have ventured to assert that the disease which is denominated puerperal fever may occasionally be arrested in its course, by a mode of treatment the very opposite to that which has been pointed out by Drs. Armstrong and Gordon, &c. as the only one affording the least prospect of relief; and consequently that extreme tenderness of the abdomen, with great distention, that very hurried circulation, with distressed nervous system, may exist after parturition, and not be depending on that species of inflammatory action which demands for its relief very copious bleedings with as copious evacuations from the bowels; and that that disease which has been characterized phlegmasia dolens may also be arrested in its commencement by the local application of a very strong solution of camphor. The experience which I have had of the very great benefit which follows the local application of this remedy in some diseases, has deeply impressed my mind with the belief that it is capable of a very extended application. Among many other maladies, I would venture to suggest its use in cases of cholera, in the full expectation that it would be found a very valuable auxiliary remedy; and, indeed, I believe that, in many of the diseases of some vital organs, which have spasmodic action and nervous irritation as striking features, the remedy would afford immediate relief; its almost instantaneous effect being one of its greatest advantages. In the following case which I trouble you with, I feel the utmost confidence that it was the means by which the subject of it was rescued from the grave.

I am, sir,

Your obedient servant,

H. GEORGE.

22, Lower Phillimore Place,
Kensington.

A child, three weeks old, nourished

by its mother, was, on the 24th, violently attacked with diarrhoea. The motions were very frequent, and each napkin that was removed appeared as though it had been soaked in saffron and water; no solid feculent matter was discharged, and each dejection took place with a suddenness and violence that, to me, was unexampled. The mother has assured me that, on one occasion, when the nurse was removing a napkin, the bowels again suddenly acted, and their contents were ejected at least to the distance of a yard. Notwithstanding the best directed efforts which I could employ, the nervous system became implicated in about twenty-four hours from the first seizure; the child became convulsed, the fits continued to increase for some hours in violence and frequency, until at last there was scarcely any intermission from convulsive action, and the child was reduced to such a dreadful state that even the parents were anxious for its dissolution.

In this state I applied the camphorated lotion (Gum. Camph. 3ss. Sp. Vin. Rect. 3j.) to the abdomen and loins, and in the evening of this day (the 26th) I found she had had very few fits, and had slept at intervals very quietly. I renewed the lotion; the child, being unable to swallow, I left to its fate.

On the morning of the 27th, I found the child had slept almost the whole night, waking at intervals, and evidently sensible to light and sound; it was still incapable of swallowing, was very languid, but there had been scarcely any appearance of convulsive action. I ordered injections of milk and Sp. Ammon. c. to be administered every two hours. In the evening I found she had passed a very quiet day. Urine in great plenty had been voided, but no relief had taken place from the bowels for sixteen hours. She appeared much revived. I ventured and succeeded in giving a tea-spoonful of castor oil, with two drops of laudanum, and directed a table-spoonful of milk to be given every two hours through the night. In the morning of the 28th, I found the child materially better; the nourishment had been taken; the oil had operated once copiously (a green motion); she had slept quietly through the night, without the slightest disposition to convulsive action. I repeated the castor oil and

laudanum, continued the nourishment, and directed that the child should be occasionally tried at the breast. In the evening I found her much improved, and capable of swallowing; no relief had been obtained from the bowels. I directed the oil to be repeated in the morning, if necessary, and the nourishment to be continued, with a drop of *sal volatile* each time that it was given, as the child had not been able to take the breast.

29th.—The bowels had acted four times in the course of the night; the last motion a very natural one; the child had taken the breast with eagerness, and slept well through the night.

30th.—The bowels open; the kidneys secreting plentifully; tongue clean and moist; appetite natural; but there has been a good deal of subsultus, and the fingers of each hand are rigid; the abdomen distended and very hard. I renewed the camphor, and ordered the following mixture, the oil to be given if necessary:—

R Liq. Potass, m. xvi.
Tr. Hyos. m. xvi.
Syr. Aurant. 3ij.
Aq. Puræ, 3vj. M. ft. mist. capt.
min. 6tis horis.

Sept. 1st.—The abdomen perfectly soft; the nervous system quiet; and the fingers have lost their rigidity; the appearance of the child is that of health.

3d.—No relief has taken place from the bowels for some hours; the child has gradually sunk into a state of stupor; is very palid, and lies with its eyes half open; is evidently sensible to sound, but when roused quickly relapses into a state of insensibility; the abdomen immensely swollen and hard; urine had been voided. I ordered the following medicine, &c.

R Conf. Card. gr. xx.
Pulv Jalap. gr. x.
Inf. Sennæ, 3iss.
Tr. Hyos. m. vi.
Sp. Ether Nitr. m. x. M. ft. Sumat.
Coch. ij. min. 2dis horis.

and the camphor to be reapplied. In the evening the child was much relieved; the state of stupor had passed away; the bowels had been freely relieved, and the swelling of the abdomen had quite subsided. The child being incapable of taking the breast, I directed nourishment to be given every two hours through the night.

4th.—The child is perfectly sensible, and slept a good deal; the bowels have been much disturbed; the motions have been trifling, and quite liquid; is very languid.

R Pulv. Contrayervæ, Comp. gr. xxiv.
Gum Acac. gr. xvi.
Aq. Puræ, 3iss. M. ft. Mist. Capt. cj.
min. 6tis horis.

5th.—The motions have become consistent, and much less frequent; the child is materially better; she has again taken the breast; slept the best part of the night; the nervous system quiet.

Continued the medicines.

8th.—The child has been going on very well.

The Contrayerva has been continued every six hours.

In this case I am persuaded that the child owed its existence to that cessation of convulsive action which immediately followed the application of the camphor. The most vivid picture of that diseased state would be no exaggerated description of the little creature's sufferings and condition at that time. I was particularly struck with her situation on the 3d of September. Her tumid belly; and, if I may use the expression, paralyzed nervous system, strongly reminded me of the state of my puerperal patient in that period of her illness when the abdomen was as distended as before delivery*, the subsidence of the swelling in both instances being followed by the same relief. Her subsequent sufferings I cannot but regard as simply the effects of indigestion. This may appear a trifling source to refer to, as producing such complicated, and what is often, too, such fatal mischief; but when we consider the character of the first attack, and the violent convulsive actions which existed for hours, it may be easily imagined that the digestive organs were left incapable of performing their functions, and that the nervous system remained prone to assume the most fatal kind of disturbance on the slightest irritation being offered.

* I allude to the case I formerly related to you.

OBSERVATIONS
ON
THE ECHENEIS REMORA, OR
SUCKING-FISH;

*With a short Notice also of the Gasterosteus
Ductor, or Pilot-Fish.*

By GEORGE BENNETT, Esq.

Member of the Royal College of Surgeons, &c. &c.
(With a Woodcut.)

THE sucking-fish is commonly found adhering to the body of the shark. It is placed, by Cuvier, among the third order of fishes, or the *malacopterygiens subbrachiens*; which is characterized "par des ventrales attachées sous les pectorales, et dont le bassin est immédiatement suspendu aux os de l'épaule." Its generic character is as follows:—

Head furnished above with a flat, ovate, transversely sulcated shield. Gill membrane six-rayed. Body without scales.

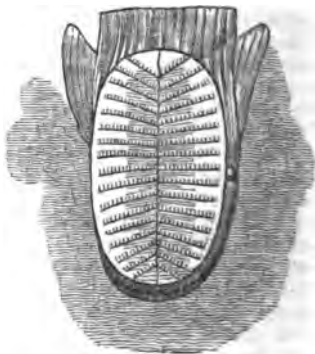
There are three species described by naturalists: the *Echeneis remora*, or Mediterranean species; the *Echeneis neurates*, or Indian Remora; and the *Echeneis lineata*, or lineated Remora, which has been described, by Mr. Archibald Menzies, in the first volume of the Linnæan Transactions. It inhabits the Pacific ocean. Cuvier mentions the *E. osteochir*, N. "dont les rayons des pectorales sont osseux, comprimés et terminés par une palette légèrement crénelée."

The description given by Dr. Shaw, in his Zoology, of the Indian species, does not accord with those I have seen. He says of the Mediterranean species, that its general colour "is an uniform brown, without any material difference of shade either on the upper or lower surface." The tail of this species he also describes as being "of a slightly forked, or rather lunated, appearance." The number of the transverse divisions on the shield, as varying "from sixteen to twenty, but the most general number is eighteen; and it grows to the length of eighteen inches." This accords, in some degree, with the species I have seen captured in the Indian seas and Southern Pacific ocean. The Indian species (*E. neurates*) he describes as differing from the preceding in its "more lengthened or slender shape, in the tail being ovate, and differing also in its colours; the upper part of the body being olive-green, and the under parts whitish; the fins are yellowish-brown, with dusky edges."

The Indian species thus described I have not yet had an opportunity of examining; all those that I have seen captured, during a voyage to India, and in the Southern Pacific Ocean, accorded with the following description, taken from one removed from a shark in latitude $11^{\circ} 56'$ north, longitude $22^{\circ} 30'$ west.

When first removed from the water, the colour of the fish was an uniform greyish or lavender, which soon changed to a brownish colour; the tail was forked, or rather crescent-shaped. The sucking plate, of an oval form, was situated on the upper part of the head, and was composed of seventeen transverse moveable cartilaginous plates (but they vary in number, according to the size of the fish), each armed with minute teeth directed backwards; from which cause it was difficult to detach the animal in a direction perpendicular or backwards, but it was removed with facility when drawn off in the direction of the head.

On inspecting the mouth I observed two rows of teeth situated on the margin of each jaw, one internal to the other, the outer row being larger and stronger than the inner; and it is probable that the inner row is intended, as in the shark, to replace the front row, when lost from time or accident. On the palate were also placed two rows of very fine teeth, and the other parts of the mouth were rough. I made several dried preparations of the head of this fish, which well displayed the form of the disk; and, by keeping the mouth distended, the rows of teeth could be distinctly seen and examined. The following cut represents the head of this fish, shewing the sucking-plate.



The fins are two pectoral, two ventral, one dorsal, and one anal; the whole of which are of small size, in proportion to the body of the fish, as well as the tail. The disproportion of the size of the head, and the diminutive size of the fins and tail, must consequently prevent its swimming to any distance, for when seen swimming its motion is very tardy, and apparently laborious. Nature has, therefore, provided it with a means of attaching itself to rocks, the bottoms of ships, &c.

I have seen them attached more commonly to the body of the *Squalus carcharias*, or white shark, than to any other species: whether it is that this species of shark is the most usually met with, I cannot determine; but on a blue shark, although accompanied by pilot-fish, I never, in the few instances I have met with, saw a remora attached, although, in the other species, I never saw one captured without one or more being attached to it: if this, on further observation, is found to be the fact, it may be probably accounted for by the *Squalus carcharias* more frequently approaching the land. The sucking-fish not being able to swim any distance, must generally remain attached to rocks, &c. and from them removes itself to the shark as he approaches.

The sucking-plate enables these fish to change their locality, by attaching themselves to the stronger inhabitants of the deep, and prevents on them, as on the rocks, the danger of being driven by tempests remote from their usual food and rest. This fish is also destitute of an air-bladder.

The remora was supposed, by the ancients, to have had the power of arresting the progress of a ship under full sail; and by others, their nourishment was supposed to have been derived from the body of the shark, or from any substance to which it adhered: all these chimeras have, however, been long since dispersed. Their food has been found from the examination of the contents of the stomachs of the specimens captured to be minute marine insects, &c.

I have seen the remora of a very large size. During a visit to the Island of Tongatabu, one of the friendly group, on August 1st, 1829, several were brought on board for sale, by the natives, which measured three feet and upwards in length. They had taken them with a hook and line. They were

cooked, and found delicate and well-tasted. During also our passage through the straits of St. Bernardin to Manilla, several, of a large size, were seen swimming about the ship, but their movements were slow and heavy.

The most usual size taken from the body of a shark, is from six to twelve inches. The Indian remora is said to be found "of the length of two or three feet; and even, according to a description quoted by Dr. Bloch, to that of seven feet. The usual number of divisions on its shield, is from twenty-two to twenty-four." Shaw's Zoology, Vol. IV. Part 2, p. 210.

The power of adhesion is retained for a long time, by this fish, after decapitation. I detached one of them from the body of a shark, decapitated it, and then applying the sucking-plate to a smooth surface, found the power of adhesion remained; and it continued for the space of nearly twenty minutes. The body of the animal, after the removal of the head, displayed much muscular irritability on being touched, and the pectoral and ventral fins moved for a long time afterwards.

There are several specimens of the remora in the Museum of the Royal College of Surgeons in London, and also the disk of one of a very large size. As the habits of fish, or any circumstances relating to them, in our present confined knowledge, cannot fail of being interesting, I have given the preceding observations from those in my manuscript journal collected during a recent voyage.

THE GASTEROSTEUS DUCTOR, OR PILOT-FISH.

THIS beautiful little fish is placed, by Cuvier, among the *acanthopterygiens*. It is the *Gasterosteus ductor* of Linnaeus, *Scomber ductor* of Bloch. It is of a beautiful blue colour, girded around the body by broad bands of a very dark blue. It is usually seen in company with the shark, and it is rather an extraordinary circumstance that it is seen in the company only of that, and no other voracious fish. I have seldom seen them larger than a foot in length, but, in breadth, some much larger than others. They have never been taken when in company with the shark, but,

on the capture of that voracious animal, they hover about him as long as he remains in the water; and a very short time after he has been hauled on board, they can sometimes be taken by a basket from the chains, as they swim at that time very superficial on the water, and sometimes they have been known (but rarely) to take bait.

London, September 1, 1881.

ANDROPOGON SCHÖENANTHUS,
OR LEMON-GRASS.

Class, *Polygamia*.—Order, *Monœcia*.

THIS fragrant plant is the Aggya ghas of Bengal, the Pengiri-mana of the Singhalese, and the Tangelat of the Philippine Islands. Every portion of the plant is fragrant, which depends on an essential oil, which is extracted and used by the apothecaries at Manilla for scenting their ointments, &c. The natives at Manilla bruise the leaves, and boil them for a short time; when cool, the decoction is strained and used as a lotion in rheumatic affections, as well as in cases of paralysis. This plant is cultivated in the gardens, and attains the height of three or four feet.—*Mr. G. Bennett's MS. Journal, September 1830.*

TEMPERATURE OF THE ATMOSPHERE, &c.

At the Bay of Islands and Wyshaki Cove, River Thames, New Zealand, from April 2d to July 15th, 1829.—Extracted from a Register kept on board the Ship Sophia (T. A. Elley, Commander),

By GEORGE BENNETT, M.R.C.S.

APRIL.—Occasionally showers of rain; but generally fine weather during this month.

Range of the thermometer, from 55° to 72°.

MAY.—Showery and heavy rain during the greatest part of this month.

Range of the thermometer, from 50° to 62°.

JUNE.—Fine weather during the greatest part of this month, excepting on the 14th and 15th, when we had

strong gales from S.E. and E. by S. with heavy rain.

Range of the thermometer from 52° to 61°.

JULY, from the 1st to the 15th.—Fine weather during this portion of the month.

Range of the thermometer from 52° to 64°.

We arrived at New Zealand on the 2d of April, and took our departure on the 15th of July. Easterly gales are prevalent at this season of the year. These are part of the winter months at New Zealand.

ON A SINGULAR STRUCTURE IN THE
TAIL OF THE EEL.

To the Editor of the London Medical Gazette.

SIR,

I HAVE observed a singular structure near the extremity of the tail of the eel, which appears most distinctly to perform the office of an auxiliary heart. Its diastole and systole are quite regular, and independent of the heart itself.

I am anxious to know, through the medium of your journal, whether such a structure has been described by any former observer.

I am, sir,

Yours truly,

MARSHALL HALL.

14, Manchester-Square,
Sept. 21, 1881.

P.S.—This phenomenon was shewn to the Committee of Science of the Zoological Society, at their meeting on August the 9th. I am engaged in tracing the office and connexions of this auxiliary to the circulation, which appear to be highly interesting.

CHOLERA.

To the Editor of the London Medical Gazette.

SIR,

I SEND you the following cases, which I think interesting, because they tend to prove one of two things:

1st. That the total absence of bile in, and the gruelly appearance of, the egesta, is not a true diagnostic symptom of the Indian cholera; or

2dly, If this be a true diagnosis, that a similar disease has already shewn itself in England.

Lastly, as a corollary in either case, they shew that, in England, it has not been an infectious disease.

My opinion on this point is much strengthened by the interesting case given by Sir Matthew Tierney, in your number for August 27th, and by information from my father* and other medical friends.—I am, sir,

Your most obedient servant,
GEORGE HEMSLEY FIELDING.

Hull, September 17, 1831.

CASE I.—This occurred in the quarantine station in Whitebooth Roads, on board the ship *Edward*, from *Petersburgh*. It was remarkably mild in its nature, and I shall therefore only give the leading features of it, and an outline of the treatment. C—, seaman, was seized with pain and heaviness in the head, and great debility; nausea and purging. On my going alongside, he came to the gangway; complained of being very weak; countenances allow and anxious; tongue brownish white, and furred; great pain and *tightness* round the epigastric and hypochondriac regions of the body, and in the bowels; cramp, particularly in the calves of the legs; nausea; purging. Did not know the colour of the evacuations. I was, of course, not able to go on board, without being myself placed under quarantine. The treatment consisted of large doses of calomel and opium; rhubarb and magnesia; Sp. Am. co. &c. The first evacuations which I saw (from a man who brought a tub into the chains) consisted of a large quantity of a *thickish fluid matter, of a white and gruelly appearance, totally devoid of bile*; the following day they became *green*. The pain and spasms soon disappeared, and the man recovered. No other of the crew ailed any thing †.

CASE II.—This severe case occurred in one of the closest and most densely populated entries in the town of Hull;

the patient in the lower rank of life, and poor; house miserable and dirty; a wife and nine children, all in constant communication with him, but *not one was attacked with the complaint*.

S—, lighterman for fruitships, æt. 53, strong and muscular, of sober habits. August 13th had committed no error in diet, and went to bed perfectly well. At 4 A.M. felt uneasy in his bowels, and about six was purged three times; stools liquid and uncoloured; took some brandy and water, as he thought he should have fainted, and went to bed. Was immediately seized with violent cramps in the arms, legs, and thighs; a cold sweat broke out over the whole body; the power of speech left him, and they thought him dying. At 8 A.M. I saw him. He was laid on his back; features pallid and shrunk; voice almost inaudible; hands shrivelled and bloodless; the extremities and the chest icy cold; the whole body bedewed with cold clammy perspiration; violent spasms of the muscles; great prostration of strength; pulse scarcely perceptible; tongue white; no sickness. Immediately ordered warm blankets, friction to the limbs, bottles of hot water to the feet and stomach, and gave him twenty grains of calomel with four of opium. I ordered him not to have any thing for the space of an hour, and then only some warm diluent drink. About ten, my father saw him for me, as I was obliged to leave town on quarantine duty. Reaction had taken place; skin warm and moist; pulse nearly natural, but weak; had been sick several times, but had not thrown up the pills; cramp much abated, but returning violently on the slightest attempt to move; one stool, without feculence or odour, exactly like cold barley or rice water, and about a pint and a half in quantity; great debility. To have gruel and brandy, broth, barley-water, &c.

R̄ Calom. gr. x. Op̄ii, gr. iv. in Bol. ii.
s. i. 4 hor.

In the evening I found him much improved. Voice firmer; skin warm and moist; pulse stronger; cramp much relieved; occasional vomiting. Says what he throws up is quite pale, but has not been able to save it, as the sickness comes on so suddenly that he has not time to reach a vessel. It is therefore *truly spasmodic*. Feels the

* I have, during the last forty years, when the English cholera has been epidemic here, occasionally seen cases exhibiting as great or greater collapse, without feculent, and almost colourless, inodorous excretions as in the above cases, attended chiefly by my son: and perhaps such appearances would be oftener observed if the egesta were more constantly inspected.—GEORGE FIELDING.

† I can send the whole detail of the case, if you think it requisite, from my notes.

same sudden action on the bowels, but has quitted nothing but flatus. Has slept a little at intervals. Continue the same diet and the bolusses, of which three more were sent.

14th, Eleven A.M.—Much better; slept tolerably well; no return of cramp, except a little in the left leg; pulse natural; skin warm and moist; tongue white; one stool, of the same gruelly appearance, but having a slightly feculent smell. Continue same diet. Continue bolusses, and to take a magnesia mixture, with a little Sp. Am. co. every three hours.

7 P.M.—Continues better; no cramp; no sickness; one stool, precisely the same as the last.

15th.—Was very sick in the night, and threw up nearly a chamber-potful of pale gruelly fluid, but says, that at the last it tasted rather bitter. One stool, still gruelly, but somewhat darker and thicker at the bottom, and slightly feculent in smell. Tongue white, and moist; pulse good. Fancied his mixture disagreed with him, and it was therefore discontinued. Has taken a little nourishment.

R Calom. gr. xv. Opii, gr. iii. F. Bol. st. s.

7½ P.M.—Complains he is very weak, but feels much better. No sickness; no cramp; skin warm; pulse natural, but weak; one stool, of rather more consistence, and a dirty greenish colour. To take a little warm gruel, or sago, with brandy, frequently; broth, tea, &c.

R Calom. gr. x. Opii, gr. ii. f. Bol. ii. s. i. 6ta. quaque hora.

16th, Noon.—Has had a restless night; threw up once a large quantity of the same gruelly fluid as before; purged six or seven times; saved the last two evacuations, which are nearly black; tongue white; pulse natural, but weak; no cramp. Same diet.

R Calom. gr. viii. Opii, gr. iv. f. Bol. ii. s. i. stat. et alt. h. s.

7 P.M.—Complains of debility, but skin warm and moist; pulse open and natural; has been sick several times, but has simply thrown up the ingesta; three stools, small in quantity, and dark coloured. To continue the same diet, and take his bolus.

R Pulv. Trag. co. 3ii. Potas. Nit. 3ss. Pulv. Opii. gr. iii. M. div. in Ch. vi. s. i. 3 hor. ex aq. hord.

17th.—Indifferent night; gums sore; debility; one stool, rather more natural in appearance; no sickness; pulse natural, but low. Continue diet.

R Opii, gr. ii. f. Bol. h. s. s. Pulv. Rhei, ʒj. Pulv. Zingib. gr. x. Aquæ Menthæ, ʒiiss. f. haustus in s. Cont. powders.

18th.—Easy night; bowels once open, and stool better colour.

Cont. Med.

19th.—Much better; bowels not open.

R Mag. Utæ, ʒj. Flor. Sulph. 3ss. Aquæ Menthæ, ʒvi. sc. ii. M. 3 hor. and to use a sage gargle to the mouth.

20th.—Mending rapidly; stools natural and formed; enjoys his food. In two or three days was quite well, and able to get out.

CASE III.—Mr. S., a delicate, sickly man, æt. 45, subject to gouty attacks and derangement of the biliary functions. This case was principally attended by my father.

August 13th, 1 P.M.—Was attacked, about 9 A.M., with nausea and pains in the lower belly. Has had three stools, which he describes as feculent and offensive. Pain in the legs, but not amounting to cramp; tongue loaded, and dirty white; pulse feeble; skin cold; hands and feet very cold. Abdomen soft. Covered with warm blankets. Hot flannels to the abdomen; gruel and brandy; broth, barley-water, &c.

R Calom. gr. x. Opii, gr. iv. f. Bol. ii. s. i. stat. et alt. h. s. Mist. Carb. Sodæ, ʒvi. Mist. Acid. Tart. ʒvi. in imp. eff. sum. 3tra q. hor.

14th, 10 A.M.—Skin still cold; countenance anxious; several evacuations, gruelly and devoid of bile; stomach excessively irritable, but sickness soon over, and evidently spasmodic. Tongue white; belly soft, but a little tenderness just below the umbilicus.

App. Emp. Canth. Abdom. R Calom. gr. x. Opii. gr. iii. f. Pil. ii. st. s. Pulv. Trag. co. ʒj. Potas. Nit. 3ss. Aquæ Cinnam. ʒvi. s. 3 hor.

8 P.M.—Has vomited frequently; two gruelly stools; tongue white; pulse feeble.

R Calom. Opii, aa. gr. iii. f. Bol. h. s. s.

15th, 10 A.M.—Sickness very trou-

blesome in the night, but slept a little occasionally. Blister has risen well. Three stools, still gruelly, except the last, which contains a little yellow bile and some dark-coloured fecula; smell offensive and feculent. Pulse natural, and open; skin moist and warm; no pain. Tongue clean round the edges, but a thick yellow deposit in the middle. Continue diet.

R Calom. gr. vi. Opii, gr. ii. f. Bol. ii. s. 1. stat. et alt. post. hor. iv.

Mist. Alk. Mag. 3vi. s. c. ii. M. 3 hor.

8 P.M.—Sickness still troublesome. Two stools, dark and offensive. Pulse natural, but weak.

R Calom. Opii, aa. gr. ii. f. Bol. h. s. s.

16th.—Has slept at intervals; vomited several times, but the matter chiefly consists of what he has taken. One stool, fluid and dark brown. Complains of great debility, and almost constant nausea; eructations. Pulse natural, and not very feeble; warm skin, and free perspiration; tongue clean.

R Hyd. c. Creta, 3ss. Pulv. Opii, gr. .

M. div in Ch. vi. s. 1. 8va hor. Rep.

Mist. Alk. 4ta quoque hora sumenda.

Beef-tea, broth, gruel, sherry wine, &c.

7 P.M.—Feels much better. No pain; no sickness; has kept some beef-tea and some wine. One stool, dark and feculent.

Cont. Med. &c.

17th.—Has been purged ten times during the night, and griped. Fresh bile in the last stools, which are liquid. Vomited twice; nausea; flatus; urine scanty. Friction, with hot brandy, to the stomach.

R Pulv. Cretæ c. Opio, gr. v. 4ta hora.

Cont. Mist. Magnes. and diet.

Evening.—Much the same; at least seven more evacuations since morning; saw one, which is of a good colour. Sickness rather abated.

Cont. Med.

R Opii, gr. x. in Suppos. ii. 6tis hora utend.

18th.—Sickness abated; tenesmus troublesome; stools more formed, and natural; a little sleep at intervals; tongue clean; pulse natural; skin moist.

Cont. Pulveres.

Evening.—Irritable, but much better. No sickness; one stool of natural appearance. Has kept all his broth, barley-water, wine, &c.

19th.—Slept well. No sickness; one natural stool; appetite improving; skin warm and moist; pulse natural; tongue clean.

20th.—Continues improving. Sits up two or three hours at a time. Appetite good; bowels open and natural. He continued speedily mending from this time, and was out of doors in a few days.

CASE IV.—J. Wilcombe, labourer, stout man, æt. 45, was seized suddenly, while working, with violent pain and cramp in the stomach; fell down and rolled about with agony. Some men brought him on to our surgery, where my assistant gave him some ammonia and lavender. I saw him almost immediately: he was bent almost double, the epigastrium seeming almost to touch the spine; hands cold; skin covered with cold clammy perspiration; spasmodic contractions of the diaphragm, and attempts to vomit, but nothing comes up. Pulse quick and small; bowels quite easy. I immediately had him bled freely to sixteen ounces, which afforded relief, and the warmth began to return; and I gave him Ol. Cajeput, gr. xxx. in a little mucilage. In half an hour the spasms were much abated, and I gave him Calom. gr. x. Opii, gr. ii. f. Bol. st. s. His pulse was open and natural, but the tongue brownish white. He walked home. In the morning he came, and said he had had a good night, and no return of the cramp. The bowels had been opened, and the stools were green. I gave him a few calomel powders to take on steadily, and saw no more of him. This violent attack had been evidently brought on by taking a draught of cold water when hot with working.

In the case which occurred in the Hull garrison, the gruelly state of the evacuations, both from the stomach and bowels, was particularly noticed by the medical men. No other soldier was similarly attacked. My friend, Mr. Huntington, also informs me that he had, a short time since, a case in which the egesta were of a gruelly appearance, and violent spasms present. The man recovered in a short time.

And here it may not be improper to notice that the temperature of the air was uncommonly high during the whole

month of August, and the atmosphere generally highly electrical. The wind principally light, and from the eastward; and in the evenings there was often a thick cold fog.

Some very interesting facts have been communicated to my father respecting the prevalence of an epidemic cholera in the village of Hatfield, about twelve miles from Hull, on the sea-coast. The medical gentleman states, that almost the whole of the inhabitants have suffered from it. The following is a sketch of the progress of the complaint as it occurred in a family he attended. The house is near the sea, and the cliff very high:—

J. D. æt. 40, strong, able man; seized very suddenly; saw him about four hours after. Violent sickness and purging; feet and hands very cold; cold perspiration; sunk, pale countenance; pulse small and feeble; cramp in the body and legs; evacuations fluid, and nearly white, like chalk, and appeared to be fermenting in the vessel. His wife and seven children all suffered from the same complaint, but he did not see the evacuations. All recovered. His wife was confined soon after her attack, and within twenty-four hours the infant was attacked with cholera. As soon as the meconium was carried off, the stools became white; it was almost incessantly purged, with great pain, and died the third day.

ANALYSES & NOTICES OF BOOKS.

“ L'Auteur se tne à allonger ce que le lecteur se tue à abrégé. ”—*L'ALPHABET.*

The History of Medicine, Surgery, and Anatomy, from the Creation of the World to the Commencement of the Nineteenth Century. By WILLIAM HAMILTON, M.B. Vol. II.

[Concluded from page 664.]

THE second volume of this work, which we have now to notice, is in many respects better done than the first. In the first, with abundant materials and ample sources of information at his command, the author has hurried through the medical history of fifty-five centuries with singular want of original research and carelessness of inquiry: his sins of omission

and commission in treating of that lengthened period are consequently numerous; and the sample of history writing, on the whole, which that volume afforded us, is any thing but creditable to the author's talents. The second volume is better, chiefly because it is written with less flourish and pretension. It comprehends an account of the last three centuries, from the time when medicine began to have a distinct literature, and to run a more brilliant course in keeping pace with the general revival and diffusion of learning, up to the commencement of the present century. Such a period, so contrasted with the comparatively barren ages which went before, and so full of discovery in every branch connected with medical science, is of course not to be treated historically in the short space here allotted to it. The author seems to feel the difficulty; he has not ventured to meddle with, much less to grasp for appropriation, the accumulated treasures which he would seem to think were rather calculated to encumber than to enrich him; but he has prudently given us, under the semblance of an historical digest, a series of biographies and sketches belonging to the period.

This arrangement, however, has many disadvantages: it presents, in the first place, no more than a meagre list of names in chronological order, with a selection of little more than such few particulars as any biographical dictionary would give; and with so little art are those names and particulars strung together, that they constitute a chain, in which, though each link may have a certain portion of workmanship to boast of, there is an incongruous want of uniformity and keeping about the whole that depreciates much its value.

Linacre, the first bright luminary of British medicine, is dispatched in four short pages of common parlance—not one new idea added to the briefest sum of what has ever been told about him; whilst, immediately after, six are devoted to the vulgar abuse which is afloat in the world about Paracelsus. This may afford a fair test of the mode in which the work has been got up—no wide or very impartial views—no nice selection from the facts laid down in opposite statements—no originality—no accuracy. A few examples will enable the reader to form his own judgment in the matter.

The paragraph about Servetus might have been written a hundred years ago:—

"A few years later than the anatomy of Berengarius, Servetus, a *Spanish* physician, eminent for his talents, and not less so for his erudition, published those two works which, however they may be regarded as detracting from the orthodoxy of his religious opinions, establish his claim to the rank of a philosophical inquirer, a good anatomist, and an attentive observer. In his work entitled "*De Christianismi Restitutione*," we find the first genuine ray of light which has been thrown on the circulation of the blood, by any of the writers who preceded our illustrious countryman, Harvey. The work which contains the passage proving Servetus to have been, at least, partially acquainted with the manner in which the circulation of the system is maintained, is of such extreme rarity as to be of enormous value, and attainable but by few. The passage itself is as follows."

He then gives us this rare passage, such as it has appeared a thousand times in the pages of various writers, since it was first given to the world as a rarity by Wotton and Douglas. After which he disposes of poor Servetus finally in a few vague figurative words:—

"From all this it is sufficiently clear that he had a perfect acquaintance with the minor circulation through the lungs, and even some idea of the chemical change which the blood undergoes from coming in contact with the atmospheric air in that organ—and thus laid the foundation of that noble superstructure, which had baffled the genius and enterprise of all his predecessors; and which none, even of his successors, aided as they were by the clear manner in which he had pointed out part, and intimated the remainder of the way, were able to accomplish until the patient investigation and brilliant talents of our countryman Harvey, after a lapse of nearly another century, discovered the important secret, and completed that beautiful theory of the circulation, of which Servetus' *discovery* can only be regarded as the faint *penumbra*."

How strange that even these few words cannot be concluded without a mistake! What *discovery*? Servetus was no discoverer. We know that he was one of the first anatomists of his

day, and that he and Vesalius enjoyed the highest reputation in the Parisian school of anatomy; but he nowhere appears, in the little that he has written on medical matters, to have any pretensions to be reputed a discoverer: he was simply an observer, and an exact one, of what had been already discovered with respect to the lesser circulation.

This naturally induces us to inquire how the author has treated the great Harveyan discovery itself? The reader will find what he has said on that subject in the following short paragraphs:—

"Six years after the discovery of the lacteals, Harvey, our illustrious countryman, who had been led, by his instructor, Fabricius ab Aquapendente's observations upon the valves of the veins, to investigate the long-disputed problem of the circulation of the blood, solved the mystery which had so long baffled the penetration of the greatest men, and, having completed his masterly and unprecedented researches, astonished and delighted the world of science by the publication, in 1628, of the true theory of the circulation—an '*opusculum aureum*,' as Haller truly observes, arranged with the most admirable perspicuity, and resting on the firm basis of experiment, unalloyed by a single particle of the base metal of speculation.

"We have already seen that the nature of the circulation had been progressively unfolding itself for a period of more than half a century, *from the days of Servetus* to those of Harvey; each succeeding anatomist adding somewhat to the mass of illumination which progressively shed its rays upon the subject, demanding only a master mind to concentrate them in a due focus, and guide their direction to the proper point. That master mind was Harvey's, who, following up the discoveries of which his instructor was unable to understand the application, completed the magic circle of the circulation, and exhibited the blood, not merely performing its minor circulation through the lungs—not oscillating, as Cæsalpinus idly imagined, in perpetual ebb and flow through the same vessels—but flowing in one full majestic stream from the left ventricle of the heart through the aorta, and its infinitude of ramifications and subdivisions, to every part of the frame, imparting life, health, vigour and warmth to all; taken up by the various and mi-

nute ramifications of the veins, after performing its destined functions; poured into the vena cava, and thence returned to the right auricle and ventricle of the heart, to prepare for the inhaling of a fresh portion of the vital fluid of the atmosphere in another passage through the lungs, previously to its resuming its vivifying circle through the system.

"The more brilliant a discovery, and the more beneficial its results, the more certain is its author of becoming the butt of envy, and the object of detraction. That of the circulation too far transcended all which had preceded it, for Harvey to hope for escape from the common lot; but we have not room to dwell on the efforts of detractors whose malice has long ceased to be injurious. The triumph of truth has baffled their efforts to detract from his merits, and the claim of Harvey to the completion of one of the most brilliant discoveries history ever had to record, stands uncontestedly admitted."

This is short enough in all conscience; but it could scarcely be otherwise in a volume where so much space is almost exclusively devoted to the minor fry of discoveries. There may be much variety and much curious matter thus brought together; but it is robbing the great and shining lights of the science to add to the short-lived brilliancy of the comparatively obscure; and we could very well dispense with the presence of a host of those medical *litterateurs*, that we might have the more room to do homage to the true and munificent benefactors of medicine.

We may have shewn ourselves rather fastidious in examining the contents of this work, and we may differ essentially from the author, as we believe we have tolerably evinced, in our view of his performance; but this shall not prevent us from doing justice to the varied and curious matter which is to be found interspersed, especially throughout the present volume. We shall make a few extracts without much pains of selection:—

"Among the other extraordinary events connected with the medical and surgical history of the sixteenth century, we have to record one which, were it not for the high authority on which it rests, might well be accounted incredible, and, even as it is, must be admitted to partake almost of the miraculous,—

so wholly at variance is it with all ordinary experience and preconceived opinions. This event is no other than the delivery of a woman residing at Sens, in Champagne, of a *petrified child*, which was taken from her by the *Cæsarian* operation, in the year 1582. This fact, paradoxical as it may appear, rests upon no less authority than that of Bartholine, Paré, Licetus, and others of the most unquestionable veracity, who strongly attest its truth. It was universally believed to have lain in the maternal uterus for twenty years before she had courage to undergo the only operation by which she could have been relieved from so unnatural a burthen, and, after having been cut out, was carried from Sens to Paris, where it was purchased by a goldsmith, from Venice, who sold it for a large sum to Frederick III. king of Denmark, by whom it was added to his collection of rarities, where it may, perhaps, yet be seen,—at least it was in existence there not many years since. That it is really a human *fœtus*, and not an artificial preparation, made to impose upon the credulous, is evident, as we are informed by those who have seen it, to the eye of any observer. Its upper part is found to be composed of a substance resembling gypsum: the lower part is said to be much harder, the thighs and posteriors being perfect stone, of a reddish colour; its grain and surface perfectly resembling that of human calculi. How to account for this singular deviation from the ordinary laws of nature in a clear, explicit, and philosophic manner, might be difficult, although not more so, perhaps, than to account for many other operations which are equally marvellous, but which, from falling more frequently under our observation, have ceased to be regarded with surprise. We know that the basis of the bones, in all created beings, is an earthy substance, which, experience tells us, may, by the action of disease, or the freak of nature, be deposited in parts for which it was not originally designed; as when ossification of the vessels connected with the heart produces angina pectoris, and chalky concretions form on gouty joints. The same irregularity of action which was capable of producing the deposition of earthy matter in the muscular or tendinous fabric of the mother, in place of the bones, can be easily understood to be capable of converting the whole of

the fœtus, while yet unborn, into a substance such as that of which the present lusus was composed; and it would be most unphilosophical, as well as impious, to deny the possibility of a fact so repeatedly attested, merely from our inability to comprehend the mode in which the Great Creator of all thought proper to effect it. To the simple child of nature, whose wanderings have never transgressed the limits of the tropics, or ascended into the regions of perpetual congelation, or to the unlettered inhabitant of the frozen regions bordering upon the pole—the consolidation of the liquid stream into a substance rivaling in solidity the firmest rock, and the flight of fish above the surface of the deep, are phenomena far surpassing in point of credibility the lithification of the fœtus—and yet both of these are phenomena familiar to every traveller, and intelligible to every tyro in philosophy. We are unfortunately left in the dark as to the constitutional habits of the mother, but when we know a mode by which, although somewhat out of the common course of nature, the change from an organized to an inorganic substance is capable of being effected, we should only expose our ignorance by denying or disputing a fact which rests for its support upon such authorities as Bartholine and Paré."

As we have given so long an extract about a petrified child, we may add another notice on the same subject, but much more brief, which we find at a subsequent page:—

"We have already had occasion to notice the fact of a fœtus having been extracted from the maternal uterus, in which it was supposed to have lain for upwards of twenty years, as attested by writers of the highest credibility, and as having occurred in France during the last century. We are called upon to speak of another, which does not rest upon equally credible authority, since it comes from an account published in 1679 by Nicholas Blegny, a quack rupture doctor, who acquaints us that the fœtus was said to have been petrified, having acquired from its long residence in the abdomen, and the pressure of the other viscera, an almost cartilaginous hardness, and retaining little of the human form. Had Blegny been ever so imperfectly acquainted with the doc-

trines of physiology, he would have known that simple pressure was more likely to produce absorption than petrification; and the whole account comes before us in so questionable a form, that although the case already related, upon the authority of Bartholine and Paré, justifies our admitting the possibility of some real foundation existing for Blegny's report, implicit reliance should not be placed on all the statements of his narrative."

The following short notice of transfusion may not be uninteresting:—

"In the Philosophical Transactions for the year 1666, we meet with the first account of experiments made upon the transfusion of the blood of one animal into the veins of another, which was laid before the Royal Society by Dr. Lower,—whose speculations probably suggested a repetition of the experiments upon the human body, which he had made upon animals; this was attempted, probably for the very first time, by John Denys, a graduate of the university of Montpellier, who published the result of his observations in the *Journal des Savans* for 1667. Denys was an enthusiast on the subject, and confident of success from the plan which he recommended; and, in a letter to M. de Montmor, he acquaints him that he had, by these means, restored a lunatic to his senses, and cured a Swiss gentleman of the name of De Bonde. His patients, however, falling victims to his practice, notwithstanding his assertions of their cure, further experiments upon human subjects were expressly prohibited by the parliament. Some recent attempts have been made, among the other paradoxical speculations of the nineteenth century, to revive Dr. Lower's and Dr. Deny's practice; but this attempt to invade the patent rights of that illustrious pair is not likely to prove very successful, or to become fashionable any where beyond the precincts of St. Luke's."

Catalepsy, that apocryphal disorder, is thus incidentally introduced:—

"In 1683, Laurence Bellini, who was born at Florence, in 1643, published a quarto volume—[This is a tolerably fair specimen of the mode in which our author introduces a new subject in his history]—on the subject of the pulse and urine, venesection, fevers, and disorders of the head and chest; of which

a fourth edition was published at Leyden in 1717, with a preface prefixed to it by the celebrated Boerhaave. It is dedicated by Bellini to Francis Redi, and is a work of considerable observation and research, although often obscure, and considerably too theoretical.

"Among other valuable matter, Bellini's work contains an excellent description of that rare, singular, and mysterious affection, catalepsy, which it has fallen to the lot of so few, even of the most eminent practitioners, to witness; an affection in which the whole of the voluntary powers are suddenly arrested, and the body becomes fixed during the continuance of the paroxysm in the same attitude in which it commenced, as though, to use the emphatic language of Bellini himself, it was suddenly converted into 'rigid iron, or inflexible wood;' or perhaps, in stricter language, the patient suddenly becomes like a breathing statue, incapable of thought, volition, or spontaneous motion, while at the same time, the vital or involuntary functions, those functions over the exercise of which the soul or thinking principle has no control, as the respiration and circulation go on unimpaired, and apparently unaffected by the apparent absence of the soul; marking such distinction between the vital and the sentient powers, as, if we could penetrate a little more deeply into those secrets which it has pleased the Almighty for the present, at least, to conceal from human penetration, would at once explain that mysterious connexion between matter and spirit, between the immortal soul and the perishable body, which the greatest philosophers have hitherto sought in vain. We hover as it were on the brink of discovery, while an irresistible power holds us back and pronounces, "thus far, but no farther."

But we must close our extracts: the volume, however, we cannot close without noticing one other egregious and singularly vulgar inaccuracy which stares us in the face at parting.

The labours of the illustrious John Hunter are thus treated:—

"In 1771 appeared the first part of a work on the Natural History of the teeth, by Mr., afterwards *Dr. John Hunter*, brother to the equally celebrated *Dr. William Hunter*, who had commenced his career in London as an

assistant to *Dr. James Douglas*, and became afterwards an eminent teacher of anatomy himself. *Dr. John Hunter*, the younger brother, rose to equal eminence as a public lecturer, and both brothers acquired great celebrity by the splendid museums which they formed. The second part of *Dr. John Hunter's* work on teeth, containing an account of the diseases to which they are subject, appeared in 1778. Both works displayed great accuracy of research, and are highly valuable to the practical dentist. His work on syphilis was published in 1786, and however severely criticized on its first appearance, both in point of theory and practice, will ever remain a monument of his sagacity and observation. *Dr. Hunter* died suddenly, while in the act of turning round to speak to one of the physicians at *St. George's Hospital*, on the 16th of October, 1793, of a paroxysm of angina pectoris, a complaint to which he had been for some years subject, in the sixty-sixth year of his age. His heart was found, on dissection, to be the chief seat of disease: it appeared reduced in size, the coronary arteries were completely ossified, and ossification had commenced in the valves. Equally industrious and persevering with his elder brother, *John* appears to have considerably surpassed him in originality of genius, and powers of investigation; and his general character fully justified the opinion pronounced by *Lavater* on seeing his portrait, painted by *Sir Joshua Reynolds*, 'This man thinks for himself.'"

And this is all the space that this greatest of physiologists occupies in *Dr. Hamilton's* history! But what we have particularly noticed it for is to expose the folly or ignorance, or both concentrated, which is betrayed in the dubbing of *John Hunter* with the doctoral title. We have heard that *Dr. Johnson* once dismissed an amanuensis, or index-maker, for writing down "*Milton, Mr. John*;" yet the poor drudge was most unjustly treated, if *Dr. Hamilton* escape, after having dubbed *John Hunter* with a title which he never possessed.

MEDICAL GAZETTE.

Saturday, September 24, 1831.

" Licet omnibus, licet etiam mihi, dignitatem *Ar-
tis Medicæ* tueri; potestas modo veniendi in pub-
licum est, dicendi periculum non recuso."—CICERO.

SEPARATION WITHOUT DISSEN-
SION*.

FOR the appearance, or rather the re-appearance, of this essay, and doubtless also for its somewhat quaint designation, we are indebted to its whimsical predecessor, from the pen of Mr. Green. But for "Distinction without Separation," we had never heard of "Separation without Dissension." *Separation* it literally is; for the paper consists of a chapter cut out of a little pamphlet published some years ago by Mr. Cooke, and now presented to us in a new dress, adapted to the fashion of the times. The contents of the original *brochure* proved the writer to be a man of intelligent and independent mind; the former quality being evinced by the pertinency of many of his remarks, and the latter by the uncompromising and indignant tone in which he—a general practitioner, spurned the adulations of a certain worthy contemporary,—adulations interestedly addressed to his department of the profession by a writer who was so blind as to miss perceiving that in reality he could not offer a greater insult to any body of men than to assume that, while ribaldry and slang were rejected by all other men of liberal education, it still continued best suited to *their* comprehension, and most grateful to *their* taste. That time is now gone by; and we shall therefore confine our observations to the portion of the original pamphlet which is now before us.

* "Separation without Dissension.—Observations addressed to General Practitioners on the best means of maintaining their Privileges and Respectability. By William Cooke, Member of the Royal College of Surgeons, &c. &c."

After a short preface, in which the author alludes to Mr. Green's suggestion for uniting the different orders of the profession into one class—his state of "ordered unity"—as chimerical, (an opinion in which we are fain to concur) he proceeds to explain his own views with regard to general practice.

On this subject the first position taken by Mr. Cooke is, that "whatever might be said in favour of the division of labour, it is for the good of society that medicine, surgery, and midwifery, should continue to be practised in combination;" and he thinks it would not be difficult to prove that those who embrace these united objects have the means of being as pre-eminent in utility as they undoubtedly are in number. Now admitting, as too evident to require illustration, the insensible gradations by which the various branches of the healing art pass into each other, we cannot allow that their union in practice contributes either to the perfection of knowledge, or, necessarily, to the advantage of the public. That it does not contribute to the advancement of science, is proved by this—that discoveries and improvements have almost uniformly been made by persons who have devoted themselves more especially to particular branches of practice; while, with respect to the public, the only reason why the union of the different parts becomes practically useful is, that as society is constituted there does not exist a sufficient demand for the services of our brethren to afford employment, except for a limited number, of those who confine themselves to one particular department. It appears to us that many persons in viewing this subject look upon it in a theoretical rather than in a practical light. It is quite true that the healing art should be *studied* as a whole, in order that the general laws of the living system in health and in disease may be the better understood; but this discipline

having been previously gone through—and all who are properly educated do thus study their profession—it seems not less consonant to the dictates of common sense, than it is agreeable to the results of experience, that the subdivisions of practice, into physic, surgery, and midwifery, have contributed in no small degree to the advancement of our knowledge and to the welfare of the community. It is true, no doubt, that subdivision may be carried too far, and that portioning the body without and within into compartments, like one of M. Deville's phrenological casts, and having practitioners for the eye, and for the ear, and for the teeth, and for the toes—and for certain other parts of no less fundamental importance—is stretching the principle to a mischievous and absurd extent. Yet is this only a proof of the impression on the public mind that he who has the field of his observation limited, will be more intimately acquainted with the objects within his range;—and in fact it is only when the intellectual vision is confined in such a manner as to shut out all general views, and thus, looking upon one point with a microscopic eye, to magnify what it contemplates into unusual dimensions, that the principle of "separation" becomes pernicious. In a field so extensive as that in which human maladies flourish, and with varieties of growth so multifarious, it appears to us that, after a general survey, the attention must be limited, to secure the most perfect knowledge which can be acquired. But when we express our opinion thus favourable to the division of labour in this as in other departments of science, we have no reference to the collegiate distinctions in our profession. A man who has directed his attention to medical cases, after having gone through a liberal preliminary education, is as well qualified to practise physic as if he had taken his degree at a university. The

title is surely the least part of the doctor—indeed it is only of value in so far as it may be looked upon as a guarantee of his acquirements; nay, even in this light, it is so little valued, that the College of Physicians do not admit the degree as superseding the necessity of examination, but merely as giving the candidate a claim to it. Why, then, should this preliminary be required? The College of Surgeons creates or constitutes surgeons; why should not the College of Physicians originate physicians, instead of licensing to practise those who are already Doctors? Let them exact certain qualifications on a high scale—as high as they please, but without the degree of doctor in medicine being previously required, and then, on passing the requisite examinations, let the individual be constituted a physician by *their* diploma.

But to return:—One of the points on which Mr. Cooke particularly dwells—one indeed which he, in common with all others who have the true interests of the profession at heart must earnestly desire—is, that practitioners should be persons who "live by the exercise of knowledge, not by the exchanges of commerce." We do not expect ever to see medicine practised wholly free from any connexion with trade; but we are quite sure that the less of traffic that appears, the more respectable will the profession become. It is in vain, perhaps, to hope that the profession and the trade can ever be wholly separated, for, as society is at present constituted, such an event would throw the poorer portion of the community entirely upon eleemosynary sources of attendance; but the furnishing of medicines might be made a much more subordinate affair than it is at present. Patients might be made to know and to feel that medical men did not order draughts partly for their own benefit and partly for

that of him who was to swallow them. Still more necessary to the respectability of the profession, and still more easy in its accomplishment, if the parties chose, would be the abandonment of all dealings in trade not immediately connected with their professional business; as where practitioners keep open shops, nay, where they sell perfumery, and other articles not belonging to medicine—or even combine the postman with the doctor, and forward an epistle and a box of pills by the same conveyance*.

It is justly observed by Mr. Cooke, that "the mode of remuneration usually adopted by general practitioners is not only disreputable to themselves, but is derogatory to the interests of their patients; and the period has arrived, in which, owing to more exalted sentiments in society, and to the augmented number of physicians and surgeons, the plan ought to be relinquished:" and in his preface we are informed that the author has "long since *wholly* abandoned the practice of compensation by medicine." The inculcation of this principle is indeed the great object of the pamphlet before us. Again, observes Mr. Cooke, "the medical man should endeavour to withdraw from the estimation of his employers every notion of traffic, and lead them to regard the exercise of his judgment as that only for which they offer their compensation. It is both detrimental and degrading to him to connive at the supposition that the fee for his services demands the intervention of physic. I wish to see general practice conducted on efficient and honourable principles, but it cannot be so till this disgraceful custom is abandoned." In these sentiments we entirely concur, and we earnestly recommend them to the attention of our brethren.

It is consistent with our knowledge

* In one of the greatest thoroughfares in London there is a twopenny-post-office at the shop of a "Surgeon, &c."

that many general practitioners are gradually adopting the plan of obtaining remuneration by charging for their advice, instead of their medicines; and as the decision of Lord Tenterden, in the case of *Handy*, established a precedent in their favour, there is every reason to hope that a proceeding so calculated to raise the character of the profession, will every day find fresh imitators.

IS CHOLERA CONTAGIOUS?*

DR. MACMICHAEL has published a little pamphlet, the object of which is to shew that the answer to the above question ought to be in the affirmative. It will perhaps be remembered that some years ago, when it was proposed to abolish the quarantine laws, the same gentleman wrote a paper, in which such a measure was strongly deprecated. On the present occasion the same line of argument is adopted, and many of the same facts and illustrations are adduced. These apply to the doctrine of contagion generally; and one of the chief objects is, to demonstrate, that formerly those diseases which are now universally admitted to be contagious committed their greatest devastations without the mode of their propagation, which we now think so manifest, being even suspected. The opinions of Rhazes, Sydenham, Willis, and Morton, on small-pox, are quoted at some length in illustration, after which Dr. Macmichael passes on to consider the history of the plague, quoting Mead's account of its introduction at Eyam, in the Peak of Derby, together with a passage from the *European Magazine* of July, 1793, descriptive of the same event. The opinions of Dr. Maclean and Dr. Mitchell are alluded

* "Is the Cholera Spasmodica of India a Contagious Disease? The Question considered in a Letter addressed to Sir Henry Hallford, Bart. M.D. President of the Board of Health, &c. &c. By William Macmichael, M.D. Fellow of the College of Physicians, and Physician to the King."

to, in order to shew their fallacy. Dr. Maclean being asked in what manner he accounted for the fact of an epidemic disease being prevented by simply shutting up a house in an infected place, answered, that the advantage to be derived depended upon the situation of the house, as to its elevation, and other circumstances connected with its locality, so that thorough drafts of air might be excluded during certain periods, by which "pestilential blasts," not contagion, were prevented. On this Dr. Macmichael comments as follows:—

"Now it may be worth while to inquire what is the exact situation of those Frank inhabitants of Constantinople, who, during the height of the plague in that city, shut themselves up and adopt the precautions of a voluntary quarantine; and I will select the residence of the British Embassy, which is usually called the English Palace, as an example. It is situated in Pera, and stands in the centre of a large garden, which is surrounded by high walls. It immediately adjoins a Turkish cemetery, where multitudes are buried daily, during the season of pestilence. All the windows of the apartments usually inhabited, look to the south and south-west; they are almost always kept open, and the freest ventilation constantly maintained. The inmates of the palace take exercise in the garden, which is of several acres extent, at all hours, and expose themselves, without the slightest reserve, to every change of temperature; in short, the only precaution they adopt, is to remain within their walls, and avoid the possibility of touching any one infected with the plague."

"If it were possible that the disease should be excited by the air, what could save the English residents from its attacks? They are as much exposed to the influence of the atmosphere, particularly to the pestilential blasts from the south, as if they were walking the streets of Constantinople, and yet they uniformly escape. But it may be observed, that the wind here blows generally from the east or west—that is, up or down the channel of the Bosphorus; and when it sets in from the west, which is often the case, the gales are charged with the effluvia from the city of Constantinople. Nor is the assertion true,

that the Turks themselves have no idea of the infectious nature of the plague: many of them believe it to be so; and the most enlightened of them all, the Pasha of Egypt, adopts a quarantine for his own security. When the plague is at Cairo, he either retires to a garden situated about two leagues from the city, and surrounds himself by his troops, or he shuts himself up in a fortress on the other side of the Nile at Gizeh."

After some further illustrations derived from the history of the plague, the doctor comes to the conclusion, that there exists a certain degree of reluctance in the human mind to admit the agency of an imperceptible and inscrutable emanation, such as we conceive that to be from which contagion proceeds; hence each fresh pestilence is suffered to work its ravages without our taking advantage of former experience; and such Dr. Macmichael holds to be our present predicament with regard to cholera.

"No one can deny," says the doctor, "that in the spasmodic cholera of India, which has now spread over a great part of Europe, we see at this moment a disease which, in its progress and mode of propagation, possesses all the properties of a contagion; and to maintain that it is not a pestilence of that sort, is, in my humble opinion, wilfully to abandon all the ordinary maxims of prudence, and to remain obstinately blind to the dictates of common sense."

The great body of Indian practitioners who witnessed the disease, came to the conclusion that it was not contagious; but some there were, notwithstanding, who held a different opinion; and as this fact has not been sufficiently brought before the public, we think it right to give the following extracts:—

"It is supposed to exist in the atmosphere, from its pervading every where so extensively; but how comes it to spread in opposition to a continual current of air, namely, the S. W. monsoon? Nevertheless, the idea of its being contagious, is entertained by few."—*Bombay Reports*, p. 140.—*Mr. Surgeon Anderson*.

"If it be something general in the atmosphere, why has it not hitherto made its appearance in some two distinct parts of the province at the same time? Nothing of this kind has, I believe, been observed. It still seems creeping from village to village, rages or a few days, and then begins to decline."—*Bombay Reports*, p. 173.—*Surgeon Jukes*.

"With respect to the origin and nature of the malady, I am incompetent to give an opinion; but that its progress is independent of the air, I think there are many circumstances to justify the belief. In the first place, we see that it has made its way, independent of a permanent S. W. wind, from Jaulna, down to Punderpoor. Its effects were not instantaneous in the country, but its progress may be traced by a slow advance from fifteen to twenty-nine miles a-day, as if it had been communicating gradually by persons travelling from town to town."—*Bombay Report*, p. 118.—*Captain Sykes Punderpoor*, August 15, 1818.

"If the disease were occasioned by a distempered state of the atmosphere, it would have spread over the country with some sort of regularity; but it seems generally to have travelled in lines along the post roads, and always to have required a succession of subjects for its propagation."—*Mr. Surgeon Coates*.

"Its introduction to Bombay has been clearly traced to a person who came from the Deccan, and passed through Panwell when this disorder was raging there; and it has been observed here, that whenever it appeared in any particular spot or family, a considerable proportion of the family or of the neighbours were attacked within a very short period of each other; on many occasions, I have seen three or four of a family lying sick at once."—*Dr. Taylor to the Medical Board at Bombay*, Nov. 16, 1818, p. 195.

"As every epidemic, by accumulation of subjects, has a tendency to propagate its virus, I am cautious in reporting this disease not infectious. *Almost every attendant in the hospital, in the short space of six days, has had the disease. There are about thirty attendants in the hospital.*"—*Dr. Burrell, Seroor*, July 27, 1818.—*Bombay Report*, p. 9.

Among the Indian practitioners, and doubtless with others also, it has had considerable influence on their decision, that if the disease be not contagious, and yet be regarded as such, much injury would arise from the desertion of the sick, to which this would give rise. This doctrine, however, is well controverted by Dr. Macmichael, who clearly shews that the spreading of the pestilence, which the assumption of its non-contagious nature so materially favours, is incomparably more to be dreaded. This has always appeared to us so striking a circumstance, that we have never ventured to adduce those arguments against the idea of its being contagious, which, we think, might be advanced—nor shall we do so now.

EPIDEMIC AT ELSINEUR.

It is a remarkable fact, that while cholera has been committing such ravages in various places on the Baltic, Elsineur and the adjacent islands have been visited by a peculiar form of disease, attended with much derangement of the digestive organs; sometimes passing into severe intermittent fever, and at others presenting the appearance of a malignant typhus. The number who have suffered is great, and the mortality has been very considerable. Agues are common at this season in the above situation; but the present epidemic differs essentially from the characters which these have presented in former years. Fortunately for the inhabitants, they have entirely escaped the cholera—unless, indeed, the disease we have just alluded to be a modification of that malady.

MINERAL WATERS IN CHOLERA.

THE opinions which the physicians of Moscow have publicly expressed, that

the use of the factitious mineral waters of Dr. Struve appears not only to diminish the susceptibility of cholera, but to render the cure more easy in case of an attack, has this season materially contributed to increase the number of subscribers to the pump-room of that place. It has been observed, that *not one* of the persons who went through a course of the waters, either during the last or the present year, has fallen a victim to this disease, although, according to the rates of mortality in that complaint, fifteen individuals would have formed the proportion which might have been expected to have fallen a sacrifice. Of six patients who were seized with the disease, after a course of the waters, every one recovered. In consequence of the active exertions of Dr. Tœnichen, the physician of the establishment, and of Mr. Hermann, the chemical superintendent, in endeavouring to elucidate the nature of cholera by chemical and physiological experiments, as well as for the skilful manner in which they have conducted the establishment, the Emperor of Russia thought proper to confer upon both the honour of knighthood of St. Anne.—*Leipzic Gazette.*

[If the above prove correct, it will be a God-send to the establishment at Brighton.]

Sir James M'Grigor, and Dr. C. M. Clarke, have been created Baroness of the United Kingdom.

REPORTS OF CASES OCCURRING AT PUBLIC INSTITUTIONS.

NAVAL HOSPITAL OF ALEXANDRIA.

Enormous Tumor of the Scrotum, weighing 110 pounds, extirpated with success by M. CLOT, Surgeon-General to the Viceroy, Director of the School of Medicine, &c.*

WHILE at Alexandria, towards the end of March 1830, (writes M. Clot) I hap-

pened to see an unfortunate Arab, who, with a monstrous scrotal tumor, procured his living by the exposure of his hideous complaint to the eyes of the public. I was particularly struck with him, and conceived the possibility of saving his life by a surgical operation. Having prevailed on the man to enter the hospital on the 27th of the month. I obtained from him a short history of himself:—

His name is Agi-Assan; he was born at Benikelp, in the environs of Mont-falont, (upper Egypt); he is now 46 years of age; of a naturally strong constitution; tall in stature; gay in his disposition; his mother has had elephantiasis of the leg; he never was any thing by profession, except a *marabout*—an humble retainer about the Moslem sanctuaries—an hereditary station of life; he used to earn his bread by begging and selling amulets. About twenty-five years ago, this complaint, he says, began to make its appearance; he never knew the cause of it; he had had, however, several attacks of venereal, which were never treated professionally, a thing which is common enough with the Arabs, their symptoms of syphilis often disappearing, as it were, spontaneously. The first enlargement of the parts was attended with pain, but the swelling soon after became indolent, and made little progress. At intervals the acute character returned, with fever and vomiting, which continued for some days, and then as unaccountably subsided. This state of things—alternations of the acute and chronic form—continued for a length of time; at every new attack the tumor attaining an accession of bulk; until, in the course of thirteen years, it had grown to the size of the head of a full-grown fœtus. Within this period he became the father of two children; but since then, that is to say, during the last twelve years, the complaint has gone on, making a rapid and regular progress, until the tumor has acquired its present dimensions.

The appearance of the tumor is singular: it looks as if Agi-Assan carried a large leathern bag, filled, between his legs; it presents not a vestige of the organs of generation, either to the sight or touch; its weight obliges the man to sit almost constantly on the ground, but when he is on his limbs he is obliged to keep them wide asunder. The tumor

* It will be recollected that reports of the practice of this clever surgeon have from time to time appeared in our pages: he is the founder of the school and general hospital of Abou-Zabel.

always touches the ground, and forms a seat occasionally for the owner of it, but he cannot long use it so. It measures twenty-three inches in length, nineteen in its transverse diameter, and ten in its antero-posterior. The front is indented to the depth of four or five inches by two furrows, which run obliquely, and seem to divide the mass into distinct portions. The integument is of a dirty-grey colour, wrinkled, and deeply creased in all manner of ways. The lower part of the tumor is the more voluminous part; the skin is there less rough, less varied in its tints, and presents along its length something resembling the appearance of the raphé. In the middle of this part projects a fold of integument, a couple of inches long and an inch broad, on the left side of which is the orifice from which the urine flows; on the right side are several ulcers, the only spots on the tumor that are painful. The hinder parts of the mass are darker in colour; and the skin is there more firm and smooth than in front. At the pubes, the pedicle by which the mass is attached measures nearly two feet in circumference, and is covered with varicose veins. There is every reason to think that the testicles are not essentially injured; nor is there any appearance of sarcocele. The patient's general health is not bad, and his frame of mind is equally favourable: in fact, the man is made up to undergo the necessary operation.

I was anxious, however, to hold a consultation before I performed it; and for this purpose I called together all the military and hospital surgeons in Alexandria. I also invited Dr. Pariset, and the French navy surgeons who were in port—among them, M. Baud, of the *Constance*, and M. Mæris, of *la Diligente*. All were of one opinion—that the operation afforded the only chance of saving the man's life—a life at present miserable in the extreme, and likely to be of no long duration if left to unaided nature. The operation was in consequence performed that very day at ten in the morning; and the process I adopted was as follows:—

The patient having been placed on a bed, with his thighs raised, and his legs drawn wide asunder, I stood at his right side, and made two incisions on the pedicle, descending perpendicularly from the groin, with a third one transversely joining them, thus securing a flap of

four inches by five for a covering for the penis. Making now two curved incisions, proceeding downwards and backwards from the base of the aforesaid perpendiculars, and to the same depth, I carried the knife on each side until the incisions met behind, by which means I was provided with flaps for a scrotum, if the testicles should prove sound. In dissecting these flaps I divided a great number of venous and arterial vessels, which I tied as I went along. I then proceeded to trace the penis, which I readily reached by introducing a bougie through the urine vent until it touched the glans: this I laid bare by cutting down over the extremity of the sound. The bougie was then introduced into the urethra, and by its means the penis was uncovered. My next object was the finding of the spermatic cords, which I eventually reached by means of two oblique incisions, directed from within outwards and from above downwards. The cords were found greatly enlarged, having three or four times their natural volume, and being from ten to eleven inches in length. By pursuing their course I came to the testicles; that of the right side was bathed in seven or eight ounces of serosity, which the tunica vaginalis held; the left one was free from this condition. Neither penis nor testicle exceeded the usual size; yet from the state of the spermatic cords, the preservation of the testicles was deemed out of the question; so I enclosed the apparatus *en masse* in a ligature, and cut them off within two fingers' breadth of the ring.

I now detached the tumor with all convenient speed, not stopping to tie any vessels, and had but three or four branches in the end to tie. The flap was now drawn over the penis and perineum, secured by sutures, and supported with a T bandage.

The time occupied in the operation was twenty-two minutes; the patient endured it with admirable courage, and seemed to suffer nothing but a slight syncope, and that only towards the conclusion. An ethereal potion recruited him when it was over, and he asked for a pipe and a cup of coffee, which were given him. His spirits have been constantly kept up with the hope of a speedy and certain cure. Immediately after the operation, I proceeded to examine the tumor in presence of the consulting physicians. Its weight

proved to be one hundred and ten pounds, exclusive of a considerable quantity of serous fluid which escaped during the dissection. The integument resembled hogs' skin in toughness and solidity; the cellular tissue was an inch in thickness, lobulated, infiltrated with a yellowish serosity, and plentifully supplied with a net-work of sanguiferous vessels. The central parts of the tumor were composed of a yellowish substance, hard and fibrous in its texture, and yielding a peculiar noise under the knife. The spermatic cords, and the epididymes, were engorged; the cords nine inches in length; the testicles were of the ordinary size, and not unsound; the passage of the urine proved to be eight inches long, and of about the calibre of a large sound; it seemed to have been formed by the prolongation of the prepuce turned back on itself.

Two hours after the operation the patient complained of pain in the perineum, and of inability to pass a drop of water. By the introduction of a gum elastic catheter, I drew off about a pint of urine; but the irritation about the neck of the bladder still continuing, I gave him an anodyne draught, which relieved him perfectly. *Low diet and linseed-tea.*

28th. — Spent the night restlessly; disturbed with dreams; the bandages copiously soaked with serous discharge; more comfortable in the evening.

29th. — A tranquil night; sleep for three hours; discharge still copious; bandages changed; the lips of the wound united at some points; the patient drinks nothing but pure water and juice of oranges, at his own request.

30th. — Pulse coming down; fresh bandages; the wound less puffy, and cleaner looking than hitherto; slight exacerbation in the evening.

31st. — Had some hours tranquil sleep in the night; no stool for the last five days. Ordered a *lavement*; diet of *rice-milk* and *barley-water*.

April 1st. — No fever; suppuration abundant and ichorous. Another *lavement*, which produced two motions in the evening.

2d. — A diarrhoea was troublesome to the patient during this day; had five stools.

3d. — The diarrhoea gone.

4th and 5th. — Progress favourable; the dressings applied but once a-day. Some *soup* and *light food* ordered.

I was now obliged to leave Alexandria, but received from Dr. Cervelli, in whose care I left my patient, ample notes, from which I select the following:—

Up to the 12th, no fever; the ligatures of the cords not yet stirring. From the 12th to the 29th, the wound proceeded favourably; the patient's diet increased, and more nourishing; the lateral parts of the integuments covering the pubis present the appearance of tubercles, like those which were on the tumor. Up to the 9th of May, nothing remarkable, but a small swelling over the part where the ligature was situated upon the spermatic cord; the application of a poultice brought forward the abscess, out of which there was discharged three ounces of pus; the ligature, however, still remained; poultice continued; patient begins to walk about. The 1st of June came, and no ligatures were yet removed from the spermatics. I requested M. Cervelli to send me the patient to Abouzabel; he set out on the 3d, and reached me on the 12th. M. Canova took care of him on the journey. The general health of the patient, and the condition of the wound, were much improved, as it turned out, by the removal; I was much satisfied with his appearance. The wound in the perineum was now entirely closed, except a spot of about an inch in length and half an inch in breadth, which was healthy looking nevertheless. The swellings in the groins with suppuration, like two buboes, resulting from the presence of the ligatures, I succeeded in reducing, as I did in removing the ligatures. The man would have been well long since were it not for these troublesome cords.

Ag-Assan is now in the enjoyment of good health. I would have taken him into my service as a porter to the hospital, but the fellow's vagabond habits made him prefer rambling about the world as he has always done.

NOTICES.

Mr. Macaulay's letter has been referred to the proper quarter, whence it has, we suppose, ere this received a satisfactory answer.

Mr. Nugent's paper in our next.

We believe our "Constant Reader" will find the information which he wishes for, in "Crowther on White Swelling."

W. WILSON, Printer, 57, Skinner-Street, London.

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OBSERVATIONS
ON
CALCULOUS DISEASES.

By B. C. BRODIE, F.R.S.

As delivered by him in his Surgical Lectures.

[Concluded from page 616.]

On the Causes of Death after Lithotomy.

IT is much more agreeable to contemplate the cases in which our art is successful, than those in which it fails; but the study of the latter is not less instructive than that of the former; and I should be guilty of a serious omission if I were to dismiss the subject of lithotomy without endeavouring to explain the circumstances which render the operation hazardous: under which it is likely to shorten the patient's life, instead of leading to his cure.

I have already pointed out to you what I conceive to be the bad consequences of a too free division of the prostate gland. All that I have been able to observe for many years past, has confirmed me in the opinion, that an incision of the prostate, extending into the loose cellular texture surrounding the neck of the bladder, is replete with danger to the patient. Such an incision is never necessary where the calculus is of moderate dimensions; but it cannot be avoided where it is of a very large size; and hence the extraction of stones of this description can never be accomplished without a great probability of the patient not surviving the operation.

The symptoms, which arise in these cases, are not well-marked in the first

instance. There is some heat of skin, and generally an absence of perspiration; there is usually an abundant flow of urine through the wound; the pulse, as to frequency, is somewhat above the natural standard; and the patient, although free from suffering, has no disposition to sleep. This state of things continues for twenty-four, or even for forty-eight hours after the operation; then the more characteristic and alarming symptoms shew themselves; the pulse becomes more frequent, rising to 90, 100, or even to 140 in a minute; the heat of skin becomes still greater; the tongue dry; the countenance anxious. Afterwards, as you count the pulse, you find every now and then a beat weaker than the rest; and at last there are complete intermissions. At first the intermissions are not more than one or two in a minute; by degrees they become more frequent, until they occur every third or fourth beat. There is an occasional hiccough; the patient complains of some degree of tenderness in the lower part of the abdomen, especially in the left groin; the belly becomes tympanitic, that is, the stomach and intestines are filled with air; the distention of the belly increases; the hiccoughs are more frequent; the pulse continues to intermit, becomes weak and fluttering. In some instances the patient retains his understanding even to the last; while in others he falls into a state of low delirium previous to death. Occasionally, in the progress of such a case, the patient has a severe rigor, and sometimes he complains of a pain in the loins. Where these symptoms begin at an early period, he may die within forty-eight hours from the time of the

operation; but in other cases death may not take place for four or five days, or even for a week. On dissection, you find the cellular membrane round the neck of the bladder, and between the prostate and the rectum, bearing marks of inflammation, infiltrated with lymph and serum; and to a greater or less extent converted into slough. If death has taken place at an early period, the intestines are found distended with air, and there is a very slight effusion of serum in that part of the peritonæum which descends into the pelvis. But if the patient has laboured under these symptoms for many days before he dies, the peritonæum, where it is reflected from the bladder to the rectum, is seen of a darker colour than natural, and encrusted with lymph; and at a still later period there is the appearance of inflammation, to a greater or less extent, throughout the peritonæum generally. But the peritonæal inflammation is evidently not the primary disease: it is the inflammation and sloughing of the cellular membrane of the pelvis which has induced inflammation of the adjoining portion of that membrane. Something also is to be attributed to the tympanic distention of the intestines, which, if continued for a considerable time, is always liable to be attended with tenderness of the abdomen, and some degree of peritonæal inflammation.

It is important that you should not fall into the error of regarding such cases as I have just described, as cases of simple peritonæal inflammation; for the remedies which would be useful in the latter case are injurious here. The abstraction of blood, even the operation of an active purgative, will cause the patient to sink more rapidly, tending only to hasten his death. The proper system to be pursued is the opposite to that of depletion. The patient should take such nutriment as his stomach is capable of digesting. The bowels may be kept open by injections, or by the exhibition of some very gentle purgative; and ammonia, wine, and brandy, are to be administered, when the state of the general system indicates that stimulants are necessary.

Under this kind of treatment I have certainly, in more than one instance, known children to recover, who were affected in the manner which I have described. In one of the cases to which I allude, an abscess formed in the neigh-

bourhood of the neck of the bladder, which burst into the wound, and then the symptoms subsided. In the other, slough separated into the rectum, and a fistulous communication remained afterwards between that bowel and the neck of the bladder; but it was of a small size, and productive of no serious inconvenience. In adults the chance of recovery is, at any rate, much smaller than in children. Can any thing be done for their assistance in the way of local treatment? Let us consider how it is that the dangerous symptoms arise. There is suppuration and sloughing of the cellular membrane round the neck of the bladder, and the constitution is disturbed, as it is in a case of carbuncle; or, what is still more analogous, as it is in those cases in which there is sloughing of the cellular membrane of the acrotum, in consequence of the effusion of urine arising from the rupture of the urethra behind a stricture. And, in these cases, what is the practice recommended? Do we not divide the soft parts freely over the sloughing cellular membrane; and is not this operation productive of the most signal benefit? Is it possible to resort to any practice corresponding to this, in the cases now under our consideration? There is only one way in which this can be accomplished, namely, by laying the sloughing abscess open into the rectum. I made this experiment in one instance, and I will tell you the result. In September, 1825, I operated on a patient, a man between fifty and sixty years of age, labouring under stone in the bladder, in St. George's Hospital. The stone was extracted without the smallest difficulty. But I performed the operation with what is called Mr. Blizard's lithotomy knife. This is a long, narrow, straight, probe-pointed bistoury, and you must cut with it laterally, in order that you may divide the prostate, so that it is difficult to determine the exact extent of the incision. Immediately after the operation, I had some misgivings, and was led to fear that I had made the incision to such an extent as to penetrate beyond the boundaries of the prostate. At first, indeed, the patient seemed to be going on as well as possible; but, in about forty-eight hours from the time of the operation, some unfavourable symptoms began to shew themselves. On the third day after the operation the countenance

was anxious, the skin hot, and the pulse occasionally intermitted. On the following day (the fourth) the pulse intermitted once in fifteen beats; the skin hot and dry, and the abdomen began to be tense and swollen. I could not doubt that those symptoms existed which I had known to be the precursors of death in some other cases. Under these circumstances, with the concurrence of my colleagues, I performed the operation which I am about to describe. I introduced the fore-finger of the left hand into the rectum. I then passed a probe-pointed curved bistoury into the wound, and quite to its farthest extremity on the left side of the neck of the bladder. The probe point having been felt through the tunicks of the rectum, I pushed it carefully through them, and, drawing it downwards, divided the lower part of the rectum, sphincter and all. Thus the wound and the rectum were laid into each other. Little or no hæmorrhage followed. The relief was immediate. In five minutes after the operation the intermissions of the pulse had diminished from one in fifteen to one in fifty beats. In an hour it did not intermit at all. During the two following days the patient appeared quite well; the pulse was regular between 70 and 80 in a minute. On the next day there was a slight recurrence of the intermissions of the pulse, but it subsided on the exhibition of some brandy and ammonia. After this there was a progressive amendment; the pulse, however, continuing to beat between 80 and 90 in a minute for the two or three following weeks. After about a month, the wound in the rectum began to contract, and the urine to flow by the natural passage; and in another fortnight the patient went into the country, nearly the whole of the urine at this time flowing by the urethra.

I have already informed you that my experience does not justify me in stating, that, after the operation of lithotomy, there is no danger of death from hæmorrhage; and I have mentioned to you that I had myself the misfortune of losing one patient from this cause. This case, which occurred many years ago, was that of an old man, with an enlarged prostate and an unusually deep perineum. The blood seemed to proceed from the neighbourhood of the neck of the bladder; and what was remarkable, it was venous. I was foiled in

all my attempts to restrain the hæmorrhage, and the patient survived the operation only a few hours.

I have known some other cases of death from hæmorrhage, occurring in the practice of other surgeons. It must be acknowledged, however, that such cases are but a very few out of a great number, and that the chance of a patient bleeding to death, where the incisions are made low down, and are not more extensive than is really necessary, and where proper attention is paid, and proper precautions are used, after the operation, is so small, that it need not enter into your calculations. I speak of attention and precautions after the operation; for, without these, I suspect a dangerous hæmorrhage would occur much more frequently. I performed the operation on an old gentleman, and extracted a large calculus. But a still larger stone remained in the bladder, which could not be extracted through the incision which I had made, without the application of what I conceived to be a dangerous degree of force. I therefore made another incision in the right side of the prostate, with a straight probe-pointed bistoury, and the stone was then easily extracted. A frightful hæmorrhage followed the last incision; so that I have no doubt that the patient would have died from loss of blood if an assistant had not pressed the internal pudic artery against the bone with his finger for several hours. Some years before this, soon after I had been elected assistant surgeon to the hospital, Sir Everard, then Mr. Home, operated on an elderly man for stone in the bladder. There was a considerable bleeding at the time of the operation, but it was not much regarded, and the patient was taken to his bed. About half an hour afterwards, the nurse came to me in great alarm, saying that the *stone-patient* was bleeding to death. When I reached his bed-side I found him pale and yawning, the bed drenched with blood, and a complete puddle of blood on the floor under the bed also. I drew him to the end of the bed, and having placed him in the position in which he had been placed for the operation, found the blood still flowing from the wound. On pressing the internal pudic artery of the left side against the bone, by means of the finger, the hæmorrhage was immediately suspended. Fortunately the patient

was a thin person, and, without any great difficulty, with the the assistance of a small flexible silver needle, I was enabled to pass a ligature round the trunk of the pudic artery. This fully answered the intended purpose. The patient was saved; but if assistance had been delayed, even a few minutes longer, it must have been unavailing.

I have sometimes heard it observed by by-standers, when a patient has lost a good deal of blood at the time of the operation, "that he has lost no more than it will do him good to lose." I have, however, great doubts whether, even in the case of the strongest man, the losing much blood adds to his chance of recovery; and it is evident, that in the case of a person of originally weak constitution, or of one whose bodily powers are exhausted by his previous sufferings, the loss of a considerable quantity of blood in the operation is likely to make all the difference between its success and failure.

I may take this opportunity of observing, that secondary hæmorrhage sometimes occurs after lithotomy: I suppose in consequence of the separation of a slough. A little boy, on whom I had operated, lost, what was for him, a large quantity of blood; and (if I recollect right, for I have no notes of the case) some time in the second week after the operation. He was excessively lowered by the hæmorrhage, but ultimately recovered. Mr. Earle related to me a case of hæmorrhage seven or eight days after lithotomy, which occurred to him in St. Bartholomew's Hospital. The bleeding was sufficient to be alarming, but he succeeded in stopping it by introducing through the wound into the bladder a tent, composed of a quantity of lint, wrapped round an elastic gum catheter.

Patients may, and continually do, recover, in whom circumstances have occurred causing the operation to be protracted for a considerable time. Nevertheless, other things being the same, there can be no doubt that, as the operation occupies a longer time, so it is more dangerous. When I was a student at the hospital, a large fat man, with a very large stone, submitted to the operation. He was in good health otherwise; but the stone broke into a number of fragments. There was a deep perineum; and these circumstances combined made the operation very difficult,

although performed by a very skilful surgeon. The patient was more than an hour on the table. He died very soon after being taken back to bed, manifestly from exhaustion.

The causes of failure which I have already enumerated, are connected with circumstances which occur during the operation, and which may be supposed to be, to a certain extent at least, under the controul of the surgeon. But there are other cases, in which death takes place as a consequence of the operation, although nothing has happened in the performance of it, which the most anxious surgeon could wish to have been otherwise. Some individuals are good subjects for the operation, and recover, perhaps without a bad symptom, although the operation may have been very indifferently performed. Others may be truly said to be bad subjects, and die, even though the operation be performed in the most perfect manner.

What is it that constitutes this essential difference between these two classes of cases? It is, according to my experience, the presence or absence of organic disease. A patient with organic disease of other organs, has a smaller chance of recovery than he would have had if such disease did not exist; but it is organic disease of the urinary organs, the kidneys, or bladder, or parts connected with them, that is to be especially apprehended as increasing, ten-fold, the hazard of the operation. Of persons in whom the stone is not of a large size, in whom the operation is performed, I will not say very well, but not very unskilfully, and who are free from all organic disease, there are few who do not recover; while, of those in whom organic disease exists, there are few who do not die. It becomes, then, the duty of the surgeon to consider what are the organic diseases most likely to occur in combination with stone in the bladder, and how these diseases are to be recognized in the living person, in order that he may be enabled to judge, before he proposes an operation, or before he accedes to the patient's wishes that he should undertake it, how far it is, or is not, probable that it may prove successful.

The common enlargement of the prostate gland, such as occurs in old men, and existing in a moderate degree, does not, as far as my observation extends, add to the danger of the opera-

tion. In fact, it succeeds on the whole better in old men between seventy and eighty years of age, than in those who are ten or twenty years younger, although the former are likely to have the prostate of a larger size than the latter. An excessive enlargement of the prostate, however, is to be regarded as an unfavourable circumstance, inasmuch as, by adding to the distance between the bladder and skin of the perineum, and placing the bladder beyond the reach of the finger, it makes the operation more difficult. It sometimes happens that the prostate gland, where it projects into the bladder, is ulcerated. I have formerly explained to you, what are the symptoms produced by this combination of ulcerated prostate and stone in the bladder. It remains for me to tell you the result of the operation of lithotomy, performed under these circumstances. I was present at such an operation twenty-two years ago. The operation was recommended by two of the most eminent surgeons who were then in practice. It was performed, to all appearance, dexterously, occupying scarcely three minutes. The patient died within ten minutes after he had been replaced in bed. I was present soon afterwards where an operation was performed on another similar case. Here the bladder contained eighteen or twenty stones, (I believe more) which, of course, made the operation more tedious. As soon as it was over the patient fell into a state of stupor, from which he never recovered. He died in about twelve hours.

Chronic inflammation of the mucous membrane of the bladder is not very uncommon in cases of stone in the bladder; and although by no means a favourable circumstance, is not to be regarded as so unfavourable as to justify you in declining to perform the operation on this account; indeed, if you were to do so, all your patients with fusible calculus would be left to die, for it is in this chronic inflammation that the deposition of the mixed phosphates, which constitute the fusible calculus, depends. But this chronic inflammation is sometimes aggravated, so much so, indeed, as to assume the characters of acute inflammation. The inclination to void the urine is then incessant, night and day, preventing sleep, and attended with horrible suffering. The urine deposits a large quantity of offensive, ropy, ad-

hesive mucus, of a red colour, in consequence of blood being blended with it. Such cases as these are unfavourable for the operation. It may hasten the patient's death; or more frequently the patient will die in spite of it, and the operation will have the credit of having occasioned his dissolution. I have twice performed the operation under the circumstances which I have just mentioned. In neither case did I recommend it, but the contrary. The patients, however, required it of me, being driven to it by excessive suffering; and I performed it in compliance with their wishes, as a matter of duty. I will tell you the result. The first patient experienced great and immediate relief. The wound granulated, and was completely healed in less than three weeks; but, nevertheless, it was evident that there was something wrong. The patient was languid and listless, incapable of exertion, and not even desiring to make it. At the end of a fortnight, or rather more, he began to complain of pains, like those of rheumatism, but more severe, in the shoulder, arm, and other parts of the body. He had rigors, gradually became weaker and weaker, and died about a month after the operation. On examining the body, the mucous membrane of the bladder was found still bearing the marks of much inflammation. The inflammation had extended to the cellular membrane external to the bladder, which was, in some parts, infiltrated with lymph and serum; and a small quantity of pus had been effused in the neighbourhood of one ureter. One of the kidneys was almost completely wasted; but this was manifestly the result of disease at some former period, and, in all probability, had no immediate connexion with the patient's death. In the second of the two cases which I have mentioned, there was also great immediate relief: for some days there were no bad symptoms, and I had told the patient's friends that all danger from the operation was at an end. But at the end of about a week from the time of the stone having been extracted, the patient began to sink. It was difficult to say what he died, but it was evident that his physical powers were on the decline; and in the course of four or five days more he died. On examining the body, the mucous membrane of the bladder was found to be of a dark colour, in

consequence of its vessels being very much loaded with blood. The same appearance was traced along the membrane of the ureters, to the pelvis and infundibula of the kidneys, and these last-mentioned parts were distended with what appeared to be an admixture of pus and adhesive mucus.

From what I have seen in some other cases, I am led to believe that these patients would have died nearly as soon, perhaps quite as soon, if the operation had not been performed. They died, as I have already said, in spite of the operation, and not in consequence of it. But these are distinctions which the public, and even some members of our own profession, do not, or will not, comprehend. It is desirable, therefore, to avoid, if possible, performing an operation under these peculiar circumstances. Such cases only tend to bring it into disrepute, and prevent some other persons submitting to it, in whom there might be scarcely a doubt as to its success.

In the last-mentioned case there was disease in the kidneys, the consequence of inflammation extending upwards along the ureters, from the mucous membrane of the bladder. But disease originating in the kidney, where the bladder itself is in a healthy state, equally adds to the danger of the operation. The patient is unable to bear the shock which the operation gives to his nervous system, and dies either immediately after the operation, or before the wound is healed. It is true that he labours under a mortal disease; that he would have died sooner or later if the operation had not been performed; but the operation hastens his death, and is therefore to be avoided.

A boy, 16 years of age, a midshipman in the navy, had for many years laboured under severe pain in the loins, and latterly had suffered from the usual symptoms of stone in the bladder. The poor fellow, however, went on doing his duty on board ship, until he could do it no longer. He was then placed under my care. His sufferings from the stone in the bladder were excessive; and in addition to these he had severe pains in the loins, and occasional rigors. The urine, when exposed to heat, and on the addition of nitric acid, exhibited a large proportion of albumen; and Dr. Prout, who was consulted with me, detected some other circumstances connected

with its chemical composition, which he had never before noticed except in combination with organic disease of the kidney. Besides all this, the patient was depressed and languid, and losing flesh. Under these circumstances, Dr. Prout and myself strongly advised that he should not submit to the operation. Some time afterwards, however, his sufferings from the stone in the bladder became so severe, that the patient declared he would rather die than submit to them any longer; and, at the earnest request of himself and his friends, I removed the stone from the bladder. It was a mulberry stone, of a middle size; and every thing in, and immediately after the operation, was as favourable as possible. For the first week the patient seemed to go on well; he was free from pain, and happy, and his health improved. The only remarkable circumstance was an enormous secretion of urine, amounting to diabetes. At the end of a few days this ceased; but it was followed by a profuse diarrhoea. There was a succession of watery evacuations from the bowels, which nothing could check. He became weaker and weaker, had a shivering, and died before the usual re-action took place, about a fortnight after the operation. On examining the body, an enormous abscess was found in one kidney, and connected with the abscess five or six mulberry calculi, of various sizes.

The following remarkable case occurred in this hospital in the year 1808. Sir Everard, then Mr. Home, performed the operation for stone in the bladder on a boy 17 years of age. The boy was in a state of depression previous to the operation; but with such knowledge as existed at that time on these subjects, it was not supposed that there were any sufficient reasons why he should not undergo it. In the course of the following night, however, he died. On dissection the bladder was found inflamed, and the mucous membrane ulcerated. The ureters, pelves, and infundibula of the kidneys, were dilated. The kidneys themselves were of a pale colour, and in the upper part of each of them was a large abscess. The abscess connected with the right kidney had burst into the abdomen (probably at the time of the operation), and not less than half a pint of pus had become effused into it immediately below the liver.

Before determining on lithotomy, you

have no more important duty to perform than that of inquiring into the state of the kidneys. I have already explained to you what symptoms mark the existence of disease in the kidneys, connected with calculi. One thing to be especially attended to, with a view to a correct diagnosis, is the state of the urine. The urine may be alkaline, and thus in an unnatural state, and yet the kidneys may be free from organic disease, and the patient a proper subject for the operation. It is purulent urine, and albuminous urine, by which your apprehensions as to the result of an operation will be chiefly excited. Albuminous urine, however, where all other circumstances are favourable, is not a sufficient reason for your declining the operation. I had a patient under my care, with stone in the bladder, a gentleman sixty years of age, whose urine was highly, and constantly, albuminous. At first I hesitated to recommend the operation; but finding that he had not a bad symptom besides this, my opinion altered. I performed the operation; the patient recovered without the smallest untoward circumstance occurring, and continues well at the present time, that is, at the expiration of two years.

Success in lithotomy must, undoubtedly, depend in a great degree on the manual skill of the surgeon, and on the mode in which the operation is performed; but it depends still more on the condition of the patient with respect to his general health, especially on the existence or non-existence of organic disease. Not a little may be attributed to accident, which may at one time throw in your way a succession of cases which are favourable, and at another time a succession of cases which are unfavourable, to the operation; and hence it has often happened that a surgeon who has been fortunate in the results of his practice as a lithotomist at one period, has been unfortunate at another. But much also belongs to the skill of the surgeon in diagnosis, by which he is enabled to determine whether the constitution is, or is not, oppressed by any organic disease, especially of the urinary organs, and parts in immediate connexion with them. What I have said in former lectures will, I trust, be found of use to you on these occasions. But let me give you one caution more. Never hastily proceed to an operation

where a stone has existed in the bladder for a great number of years. It is in such cases especially that you are to expect the stone to be of great magnitude, and that you are also to apprehend the existence of disease in the bladder or kidneys, or abscess in the cellular membrane of the pelvis. Be assured, that the operation seldom fails where it is resorted to at an early period; but that there is always danger in delay. Many an individual, influenced by his own fears, or in compliance with the absurd advice of his friends, has missed the period at which an operation would have been almost free from danger; has dragged on an anxious and uncomfortable existence, month after month, and even year after year, trying at one time medicines prescribed by regular physicians, and at another time medicines prescribed by quacks—all to no purpose; and at last has been driven by his sufferings to make up his mind to undergo the operation, when his condition has become so altered that a prudent surgeon would either altogether decline to undertake it, or would do so with great unwillingness, and solely as a matter of duty, or, if you please, of humanity, towards a suffering fellow creature.

On some other Methods of Removing Calculi from the Bladder.

Whatever advances may have been made in the other parts of surgery, it may be confidently asserted that there has been no real improvement in the lateral operation of lithotomy since it was practised by Cheselden, more than a century ago. The method which I have described to you is indeed that of Cheselden, from whom it has been adopted generally, not only by the operators of this country, but by those of the continent of Europe.

There have not been wanting, however, ingenious persons, who have endeavoured to extract calculi from the bladder in other ways, in the expectation of discovering an operation simpler, or safer, than that of Cheselden. Of late years an attempt has been made in Paris to revive the high operation, in which the incision of the bladder is made at its fundus, where it lies behind the pubes, and immediately below the part at which the peritonæum is reflected over it. The high operation was indeed recommended by Cheselden him-

self in the early part of his career, but he soon abandoned it for the lateral operation, from which last method he never deviated afterwards. The late advocates for the high operation, however, suppose that they have made in it an essential improvement, inasmuch as they adopt means for keeping the bladder empty of urine afterwards, so as to allow the wound in the fundus of the bladder to heal, without the danger of the urine becoming effused into the surrounding cellular membrane. For this purpose some make an incision into the urethra from the perineum, from which they introduce an elastic gum canula into the bladder; while others employ the simpler expedient of a gum catheter, introduced by the urethra in the usual manner. I have been present on three or four occasions, when the surgeon undertook to perform the high operation; but nothing that I have witnessed would lead me to recommend it to you; nor, indeed, does it appear to me that you would be justified in the performance of it, except in the case of a thin person, with a stone of so large a size that the extraction of it by the usual method would be either impracticable, or attended with the greatest risk to the patient's life. But even for cases such as these there is, I conceive, a better method of proceeding, in the recto-vesical operation; in which the incision of the perineum is made to extend through the tunicks of the rectum and the *sphincter ani* muscle. Here the parts which afford the chief resistance to the extraction of a large stone are divided; and although the incision of the neck of the bladder extends beyond the boundaries of the prostate, the ill consequences arising from the escape of urine into the cellular membrane are likely to be in great measure obviated, in consequence of the free opening which has been made into the rectum. If you refer to the case which I have already related, in which, some days after the removal of a calculus by the usual method, I was induced to lay the wound of the perineum, as far as the neck of the bladder, completely into the rectum, you will find in it much in favour of the recto-vesical operation in those cases in which the great bulk of the stone makes an extensive incision of the prostate and bladder necessary. Further than this I have little to offer, from my own experience, on this subject.

In the only instance in which I performed the recto-vesical operation, the patient, who had suffered from a stone in the bladder for more than twenty years, died in about three weeks, with abscesses in the kidneys, and a large abscess on one side of the pelvis, having no communication with the wound, and which I believe to have existed long before the patient came under my care. The stone in this case had been supposed to be of an unusual magnitude. It proved to be much smaller than was expected; but I felt convinced at the time, that if it had been many times larger than it was, it would, nevertheless, have been extracted with the greatest facility.

I ought not to pass over in silence the new lithontriptic method of operating; but I have little knowledge on the subject, except what I have obtained from books, and from seeing it performed by Baron Heurteloup. Indeed, with my various other engagements, I do not expect to be able to acquire the tact necessary for the proper performance of it. I cannot doubt, however, that in the hands of so skilful and ingenious an operator as Baron Heurteloup, it is likely to prove useful on a number of occasions. It possesses, at all events, these advantages over lithotomy: it is less formidable to the patient; it requires little or no confinement; and persons will be induced to submit to it, at an early period, who would not have mustered courage to submit to lithotomy until after a lapse of time, when their sufferings had become excessive, and when probably some circumstances had arisen to make the operation dangerous.

Calculi of the Prostate Gland.

Calculi occasionally form in the ducts of the prostate gland. In the museum of this hospital there is a preparation of an enlarged prostate, in every part of which are found minute calculi, none of which are bigger than a pin's head, and too numerous to be counted. In general, however, they are fewer in number, and larger in size; I have seen them as large as a pea, or even as a horse-bean. They are composed of the phosphate of lime, of a light brown colour, and not unfrequently are smooth and somewhat glossy on the surface. I believe that they frequently exist for a considerable

time without the patient being aware that he labours under any kind of disease. In other cases they cause a sense of irritation, referred to the perineum and neck of the bladder, and sometimes a difficulty of making water, so that patients have applied to me, supposing themselves to labour under stricture of the urethra, whose real complaint was the formation of prostatic calculi.

We know of no medicine that is capable of preventing the formation of this kind of calculus; and in ordinary cases there seems to be nothing for us to do, beyond the occasional introduction of a full-sized bougie, to keep the urethra dilated, and thus favour the escape of the calculi as fast as they become disentangled from the ducts of the prostate, in which they have been generated.

These are some cases in which a number of these calculi are collected in a cyst in the prostate gland, plainly perceptible with the metallic sound introduced into the urethra, and just before it enters the bladder; to be felt also with the finger in the rectum, sliding on each other under the pressure of the finger. In a case of this kind you may introduce a staff into the urethra, and with this for your guide, make an incision in the perineum extending to the prostate, but not into the bladder, and thus extract the calculi. I have formerly mentioned to you a case of this kind, in which I succeeded in removing a large number of prostatic calculi by means of Weiss's urethra forceps. There is always danger of some of these calculi finding their way into the bladder, and thus laying the foundation of calculi of the bladder. This happened in the case to which I have just referred; so that after I had completely emptied the cyst of the prostate, I had to remove a considerable number of calculi, of a still larger size, but of the same chemical composition, from the cavity of the bladder.

Treatment of Calculus of the Female Bladder.

In women calculi of a small size are expelled, as they are in the male sex, without ulceration, or other injury to the urethra, and without the patient suffering any inconvenience afterwards.

Calculi of a larger size occasionally escape from the female bladder; but the

natural cure in these cases is effected by a less simple process. A woman was admitted into our hospital, under the care of the physicians. On inquiring into her case the apothecary of the hospital found a large calculus lying in the vagina, and he extracted it with his fingers. The urethra and vagina had ulcerated, and the calculus had passed through the ulcerated opening. The patient was thus relieved of the disease under which she had for a long time laboured; but it left another and very distressing disease behind it, namely, an incontinence of urine. Many cases similar to this have been recorded by writers; and you will find a paper on the subject, which is well worthy of your attention, by Dr. Yelloly, in one of the volumes of the *Medico-Chirurgical Transactions*. There is reason to believe that incontinence of urine always follows the natural cure, where the calculus has made its way out of the bladder by ulceration.

The peculiar structure of the female urethra renders it much more capable of dilatation than the urethra of the other sex; and stones of considerable size may be removed in this manner, without the aid of any cutting instrument. If you look over the early volumes of the *Philosophical Transactions*, you will find that this is no new invention; but the operation had fallen into disuse, and, indeed, I may say that it had been forgotten, when it was revived by Mr. Thomas. Mr. Thomas was called to a lady, who, I know not for what purpose, had deposited an ivory tooth-pick, three inches long, in her bladder. He introduced a piece of sponge tent into the urethra; as the sponge swelled the urethra became dilated, and the tooth-pick was then easily extracted. Since then the same operation has been performed by Sir Astley Cooper, and various other surgeons. I have myself employed this method in two instances. In the first, I accomplished the dilatation by means of a piece of sponge tent; in the second, I made use of the dilator which Mr. Weiss has invented for this purpose, and which is undoubtedly to be preferred to the sponge tent, as it enables you to dilate the parts very gradually, and does not interfere with the free escape of the urine. Neither of these patients suffered from incontinence of urine afterwards.

When you attempt the dilatation of

the female urethra, I would advise you to proceed gradually. The process, however, may in most instances be completed, and the stone extracted, in less than twenty-four hours. If you use the sponge tent, it should be of that kind which is made by compressing a piece of wet sponge between two pieces of board in a vice, or under a very heavy weight, and not that prepared with wax; and the tent should be once or twice removed and renewed, in order that it may be increased in size, and also that the patient may not suffer from retention of urine.

The operation which I have just described does not, however, seem to be applicable except to cases of calculi of moderate size. Where the stone is large, an incision of the urethra is necessary for its extraction; and this may be accomplished in the following manner. Introduce a director or straight staff into the urethra and bladder, and then, by means of a cutting gorget, a common, straight bistoury, or the *bistouri caché*, divide one side of the urethra, dilating that canal to a sufficient size for the introduction of the forceps. It has been most usual to make the incision of the urethra obliquely downwards and outwards, so as to include a small portion of the vagina. The bladder is completely within reach of the finger, and nothing can be more easy or expeditious than the method which I have just described. But the patient is generally subject to the great inconvenience of an incontinence of urine afterwards. I need not tell you how important it is that such a result should be avoided. The late Mr. Hey, of Leeds, in one instance, after the operation, introduced a tent, formed of a roll of linen, into the vagina: I conclude that this kept the cut surfaces in a state of apposition, and caused them to unite by the first intention; at any rate the experiment succeeded, and the patient was able to retain her urine afterwards. I repeated Mr. Hey's experiment in a case in St. George's Hospital three or four years ago, but not with the same success. The patient, however, was a young and restless child: it was difficult to retain the tent in the vagina, and I do not think that, in this instance, the method was fairly tried.

I was led to believe that the whole of the female urethra could be dilated easily, and to a great extent, with the ex-

ception of its external orifice; and, under this impression, in the next case which came under my care I tried another modification of the operation. Having introduced a straight staff into the urethra, I made a small incision, extending through the peculiar structure which surrounds the orifice, but no further. The wound was not more than one-third of an inch long in any direction. I was then enabled gradually, and with very little force, to introduce a pair of forceps into the bladder and extract the stone. This patient, after the operation, was not troubled with actual incontinence of urine. She could retain her urine one or two hours, but not so long as an ordinary person. The stone, however, in this case, was not above a middle or average size; and I do not suppose that the same method of operating would be found applicable to a case in which the stone was of large dimensions.

In another case I performed an operation which my friend, Mr. Hodgson, of Birmingham, told me that he had seen performed with success by another surgeon, and, if my recollection is accurate, in two or three instances. I introduced a *bistouri caché* into the urethra, having previously fixed the screw in the handle of the instrument so that the cutting edge could not be made to project more than to a very small extent—perhaps one-sixth of an inch. Then drawing out the *bistouri*, with the cutting edge directed upwards, I endeavoured to divide the membrane of the urethra immediately below the symphysis of the pubes, without allowing the incision to extend into the neighbouring cellular texture. The next step of the operation was to introduce Weiss's dilator, and dilate the parts sufficiently to allow of the introduction of the finger, and afterwards of the forceps, into the bladder. As the urethra now offered no resistance, this dilatation was readily effected in the course of a few minutes, and thus the stone was extracted. This patient, like the preceding one, did not suffer from incontinence of urine after the operation. She could not, however, retain her urine for so long a time as before the stone had formed—I believe not longer than one or two hours.

DR. PHILIP'S REPLY

TO

DR. PROUT'S PAPER IN THE LAST
NUMBER OF THE MEDICAL GA-
ZETTE, ADDRESSED TO THE EDI-
TOR.

*To the Editor of the London Medical
Gazette.*

Cavendish-Square, Sept. 26, 1881.

SIR,

As I cannot stoop to the language of Dr. Prout, I must leave the reader to determine whether his terms of contempt are ill or well applied.

He has, indeed, carried into full effect the first part of his threat, to "*dip his pen in gall*," but in the latter part he has failed, for it is himself, not me, that he "*spares not*." It is melancholy to see such a man as Dr. Prout adopting, not only the language, but the little tricks of the lowest pamphleteer. What is it of the questions between us whether I ascribe more than is due to the effects of half a grain of blue pill? Does Dr. Prout suppose that the effusions of anger or pride will either pass for argument or deceive the reader respecting the source from which they flow?

Have I given Dr. Prout any just cause for thus forgetting himself? I appeal to the reader whether, in the style of my first paper, there was any thing offensive, but on the contrary?—and for any thing of this kind which may betray itself in my replies, have I not had more than a sanction in the tone, from the first, assumed by Dr. Prout, who seems a little to mistake his position? He judges others where his own claims are more than doubtful; and forgets the modesty, which would still be becoming, were they established.

All arguments respecting the proper use of terms, he calls metaphysical subtleties; but, with singular inconsistency, confines his answers almost wholly to this part of the subject, and even here wanders from the point. His learned disquisition respecting psychology, is out of place. I have already had occasion to remind him that usage, not etymology, determines the meaning of words in each particular language. In charging me with ignorance, he probably thought it proper, to shew his own learning. I wish all his promptings had been as innocent, although I cannot

help thinking that the space and time thus employed, as he still confines himself to my verbal objections, would have been better occupied by clearing up some points respecting the composition and use of his new term, *mesorganization*; but this is not to be done by quoting Greek.

Can any thing, in the whole scale of unreasonableness, exceed the following sentence? "If the Doctor did not approve of such a general use of these terms, *which he evidently saw*, it was his business to criticise them in the first place; and not, with his eyes open, run headlong into this metaphysical trap, and afterwards throw the blame on me." By what human means could I see his use of them? The supposition of a careless use of them explains all that the reader sees amiss in their use; and this was surely a more natural explanation than that the author was using his terms in a new sense without defining it. Dr. Prout not only uses his terms inaccurately, but considers himself entitled to abuse the reader for not seeing what, in the very nature of things, it is impossible he can see.

So far from being able to discover from his lectures, the meaning of the term metaphysics; now that we know it, it is impossible to reconcile it with what is said in them. In the very first page, for example, he calls metaphysics all fancy and hypothesis. He surely cannot mean that metaphysics, in the extended sense in which he explains it—that is, including every thing but physics—all animated nature, the phenomena both of animal and vegetable life, is all fancy and hypothesis!

It appears, from the passage just quoted, that he chooses to refer the whole of our difference of opinion to the misapprehension of terms: but the real questions between us are, how far can chemistry explain the laws of the living animal body, and enable us to cure its diseases? Questions that cannot be influenced by any verbal discussion. It is to the various facts relating to them, which have, in my different papers, been adduced, that I look for a reply, and have hitherto looked in vain. They have nothing to do with Dr. Prout's metaphysical trap. Here, I admit, he has hit on a most appropriate term. I will defy any reader to discover his secret till he is fairly entrapped and informed of it by the Doctor

himself. I think I may now claim to be excused from replying to any of his observations, unless they relate to the facts in question. . . . If I understand what Dr. Prout now says, it amounts to this, that in his observation, that the department of knowledge which lies between chemistry and metaphysics "is little farther advanced than it was twenty years ago," he did not mean to include in this department the laws of the living animal body; because these he considered as belonging to the science of metaphysics; and that, having explained this in his first reply, he conceives my objections were answered, and that there the correspondence should have ended.

Had Dr. Prout given this explanation in his lectures, however extraordinary his opinions might have appeared to me; I certainly should not have replied to them; for I did it with reluctance, and solely on the principle of self-defense, the only principle on which I ever engaged in any controversy; and had Dr. Prout replied merely by explaining the misconception respecting his use of the term metaphysics, were the subject would have dropped; but I had been necessarily led into observations on the inefficiency of chemistry to explain the laws of the living animal body, either in health or disease; and Dr. Prout, in his reply, not only accused me of errors, but errors admitted by myself. Thus the present correspondence ensued; which I should deeply regret, if I could accuse myself of having been betrayed into any degree of the spirit with which I am charged by Dr. Prout. To place the truth in the clearest point of view I could, has been my only aim; and if the alternative is to abstain from doing so, or to incur his anger, I certainly shall not hesitate in the choice.

He says I am "determined to find fault with every thing." I will admit the charge if he can point out one instance in which I have accused him of an error which does not essentially interfere with the questions between us.

He passes from abusing me to reflecting on himself for having published his lectures in so imperfect a state, and gives us ground to hope for them in a corrected form; so that I have reason to believe that my pains have not been wholly thrown away; and we may trust that the amendment will be great,

if I am not singular in my inability to reconcile the following passages, the one from his lectures, the other from his present reply, "Here every thing is new, at least at present, and apparently unlimited; for chemistry, perhaps, more than any other science, depends, for its advancement, upon the gradual development of human knowledge. That the physician of another age will be as familiar with the operations of the animal economy as he is at present with its anatomy, I have not the least doubt. The minute and ultimate anatomy is unknown to us, the minute and ultimate chemistry will always, probably, remain so; but all the great and obvious changes, like the great and obvious parts of the living machine, are within our power, and will be known; and, to push the comparison still farther, I will venture to predict that what the knowledge of anatomy at present is to the surgeon, in conducting his operations, so will chemistry be to the physician in directing him generally what to do and what to shun; and, in short, in enabling him to wield his remedies with a certainty and precision, of which, in the present state of his knowledge, he has not the most distant conception." Such is the passage from Dr. Prout's lectures. The following is from his present reply. "I do not profess to know a single instance in which any medicinal or other agent can be applied *directly*, so as to operate, in virtue of its chemical powers, in the animal economy, by supplying what is deficient or correcting what is in error."

In his promised reply, I suppose, he will at length condescend to notice the facts I have laid before him, and endeavour to disprove them, or to shew that they are consistent with his doctrine—that chemistry will be to the physician what anatomy is to the operating surgeon; or, lastly, acknowledge the better principles which appear to dawn in his present reply.—I am, sir,

Your obedient servant,

A. P. W. PHILIP.

CASE OF
PLEURO-PNEUMONIA (BILIOUS?)

Without "Râle Crepitant," and without
Egophony,

TREATED WITH LARGE DOSES OF TARTAR
EMETIC.

BY DAVID BADHAM, M.B. Oxon.

THE impossibility of applying the fundamental rules of auscultation to the detection of every case of thoracic disease that may occur, cannot but frequently force itself upon those who, finding in the stethoscope that additional testimony which often confirms, but which as often corrects, an otherwise dubious diagnosis, are particularly anxious to collate, when an opportunity offers, the very important information deducible from this, with what they may have collected from other sources, in order that, by the careful consideration of conflicting phenomena, they may arrive at the safer conclusion to which either the numerical amount, or the greater relative importance of particular symptoms, may ultimately conduct them. It is the remark of no mean observer of disease, that, "when we are desirous of drawing from the accumulated evidence of particulars, certain general considerations and results, the chances are, that our experience, which is continually increasing our stock of such particulars, will simultaneously bring into view new considerations and new results, which may be even diametrically at variance with the last." Unlike the study of the exact sciences, (it is the just observation of Andral) where principles being given it remains only to apply them,—in medicine, where no one fact exactly coincides with any other, we must, so to speak, be continually individualizing; in this consists all the difficulty of diagnosis; and hence it is, that he who has seen most, (if he be, moreover, a man of observation) is likely to see farthest. "Celui qui le plus vu est aussi celui qui doit mieux voir."

The following case does not, perhaps, so much impugn the general accuracy of Laennec, as exhibit striking exceptions to his well known and leading rules in auscultation; 1, that pneumonia is invariably attended with râle

crepitant till it has reached the second stage, and consolidation of the lung has been accomplished; 2, that bronchophony necessarily attends the progress of such consolidation; 3, that we may in all instances detect pneumonia by the joint assistance which percussion and auscultation afford. Nor can I think it quite useless at this time, when the stethoscope deservedly occupies so much attention, to commemorate, though but in a single instance, its insufficiency to establish the existence of a pleuro-pneumonia, which was well marked in its symptoms, regular in its progress, and apparently uncomplicated with any disease that might be supposed to mask the original and idiopathic affection. But although the cylinder be occasionally silent when we would gladly listen to its interpretation of disease, we are compelled to admit that the most fruitful source of error in using it as an instrument of diagnosis, exists in ourselves; not in the tube that conveys, but in the brain that receives and mistakes the admitted sound; but this is a source of error which, happily for us, larger experience and greater diligence of observation will daily render less and less likely to occur.

James Annatt, ætat. 19, tall and narrow chested, but whose health has been generally good, was seized on the morning of the 7th of August, and without previous exposure of any sort*, with an acute pain in the lower part of the right side of the thorax, accompanied with rigors and uneasiness in the organs of respiration†. These inflammatory symptoms rapidly increasing, the patient went early to bed; vomiting of pure bile came on, which continued, with much pain, for some time; warm water was now applied by his mother over the seat of the pain, but without affording any relief. I was called to

* *Pant il entièrement rayer un cadre nosologique les pneumonies bilieuses ou adynamiques? Pant il rejeter dans tous les cas l'existence d'un état inflammatoire général qui précède pneumonie, comme dans le rhumatisme cet état général précède souvent l'inflammation articulaire?—Andral.* Had Andral been familiar with the writings of the German school, he would not have asked the first of these questions. Stod has not only written expressly on bilious pneumonia, but exhibits to us in his "Medical Year" many cases of it under treatment. Hildenbrand supports the old doctrine by new arguments, that all diseases, acute as well as chronic, are modified and masked by the bilious diathesis.

† The shiverings generally precede the pain in the side, but not always.—*Andral.*

see him next morning at ten o'clock, by which time his symptoms had become considerably aggravated. I found him lying on his back, breathing with great pain and difficulty at the rate of from forty-five to fifty inspirations per minute. The seat of the pain was not confined to a spot, but seemed to occupy chiefly the "pleura diaphragmatica." The countenance, pale and agitated, is moreover what the French writers call "grippé." Skin hot; pulse very weak, and so quick and irregular as to be counted only with difficulty; cough not urgent nor violent*, but occasioning, when it occurs, a very sharp pain. There is no expectoration; the tongue is remarkably foul, with red edges and tip†; the urine is copious, and not unnatural in colour‡. The two sides of the chest appear to describe an equal curve, there being no projection of the parietes of either. On applying the hands over both sides, and on making the patient talk, (Mr. Reynaud's test for a pleuritic effusion) I recognized no perceptible vibration. From these considerations, and from the absence of ægophony, there would appear to be no effusion into the pleura; at the same time, that the pleura is inflamed I can entertain no doubt, from the pungency of the pain, which is too sharp for mere pneumonia. Percussion and auscultation (the former of which was the more easily practised from the seat of the pain) were now adopted, with a view of ascertaining whether the inflammatory action had extended from the lining membrane of the lungs, in which it should seem to have begun, into the parenchyma. To the first of these modes of exploration, the lower and middle parts of the right lung give an

unusually dull sound; elsewhere the sound elicited is natural, being of course more or less sonorous according to the region percussed. This obscurity of sound extends from the plane of the base of the ensiform cartilage completely to the floor of the thorax before and behind.

The obscurity of sound might owe for its cause extensive pleuritic effusion, or infiltration of the substance of the lung. The stethoscope should determine the point; but I found to my surprise, on applying it, that there was no crepitating râle to indicate the latter, and no ægophony to declare the former affection. The experiment was made very frequently throughout the disease, and invariably, with one exception, the same results were obtained. The inference, therefore, was, that either hepatization of the lung had occurred within twenty-four hours, (which was impossible) or that, if there were effusion into the pleura, it was so extensive as to suspend ægophony; or, lastly, as will appear to have been the case, the râle crepitant is not always to be looked for in the early stages of pneumonia.

Bronchial respiration was well characterized over the whole lower lung of right side, both before and behind, with the important peculiarity in the latter situation of a remarkable retentissement of voice, which was not heard in front. On the whole, I found it very difficult to pronounce from the testimony afforded by any method of exploration, whether the case were simply pleurisy, or pleurisy to which pneumonia had supervened, or the latter affection exclusively.

V. S. ad 3^{re} viii. adhibeantur insuper hirudines octodecem. hypochond. dextro.

Great relief followed the bleeding; the pain had nearly gone; the breathing had become much easier; the countenance of the patient seemed to have expanded, but the pulse was scarcely affected by the depletion.

He passed a restless feverish night; slight return of pain; breathing less free than yesterday after bleeding; tongue and pulse the same as at first; has had palpitations during night*, and

* It is impossible to determine the quantity of inflammation present in the lungs by the amount of the cough, since sometimes, while this is very intense, that not unfrequently either has no existence at all, or obtains in so slight a degree, as scarcely to challenge notice from the practitioner. "On conçoit que la toux peut très naturellement ne pas se montrer chez des individus peu irritables dont la muqueuse bronchique n'est pas symptomatiquement irritée par la phlegmasie de la plèvre."—*Ibid.*

† This appearance deserves notice, the rather as the thoracic affection is not complicated with any gastric irritation which might occasion such an appearance in the membrane of the tongue, but Andral (*Maladies de Poitrine*, vol. 2d) gives several cases of pleurisy where this phenomenon was observed also without gastric complication.

‡ So far is it from being, as is common in such cases, scanty and red, as if it held blood in solution.—*Lacaze.*

* Did these palpitations arise from the engorged state of the parenchyma of lungs, which could not receive all the blood of each systole of the heart? We must be cautious in admitting such a supposition, since, although they ceased after a second.

as the heart is still perceived to be over-active, I was induced, notwithstanding the extreme feebleness of the pulse, to take more blood*.

Give him one grain of tartar emetic every two hours.

First dose of tartar emetic produced vomiting, which consisted of pure bile; the second a slight diarrhoea; the next three and four doses slight nausea.

Increase tartar emetic, and let him take a grain every hour.

Wednesday morning.—Has had a better night; pulse stronger but very

quick; tongue rather less, but still very foul, with red edges; expectoration now considerable, but simply catarrhal.

Continue tartar emetic.

Evening.—Begins now to expectorate a large quantity of the characteristic sputa of first and second stage of pneumonia, "crachats rouillés transparens visqueux."

Thursday.—Complains of being very weak, but has no pain unless he draw in a long breath; pulse stronger; tongue much improved in appearance.

Diminish tartar emetic to gr. xii. in the twenty-four hours.

Friday.—Pulse only 100, and more natural to the feel; sound on right side not so dull on percussion; bronchial respiration less intense, but no crepitating rattle to denote the resolution of the inflammatory stage, and commencement of action of absorbents. Sputa still characteristic, but not so rusty nor so copious as yesterday.

Saturday.—Sputa have again become catarrhal.

Omit tartar emetic.

Sunday.—Found my patient bathed in a profuse perspiration in the morning, so that I could not safely explore the chest.

Evening.—Sound on percussion of right side, though much improved, is still somewhat obscure, but there is no crepitating rattle.

Monday.—Pulse 85; tongue nearly clean, and patient in every respect convalescent; crepitating rattle heard for the first time to-day. As the bowels were constipated by the tartar emetic, I gave him latterly a blue pill of five grains every night. On leaving off the tartar emetic I commenced giving him polygala; and after Monday ceased to lay any farther restrictions upon his diet.

The case before us furnishes the very important inference, that though there may be truth in the often-iterated remark, which forbids us to trust too much to any one symptom in this disease, yet exception must be made in favour of such as, like the rust-coloured sputa in pneumonia, are really decisive. Without this test, it may be observed, which is infallible, the disease, if not liable to be mistaken for rheumatism of

and a very small venesection, they had not existed previously to the first, when the system had so much more blood circulating through it.

* Under what circumstances should we bleed in inflammation? Laennec has furnished us with a rule which seems of the highest practical importance; it consists in examining and comparing the pulsations of the heart with the radial pulse. If the radial lotus was strong, but cardiac action weak, he abstained from blood letting; but if the heart's impulse was strong, he bled, though the carpal lotus was exceedingly small. The rule is of the greatest practical importance. The premises on which it is founded suggest the following considerations. In the first case, on the supposition that distention explains arterial, it therefore cannot account for the cardiac pulse; in the latter case, if it explains cardiac, it therefore cannot produce the arterial pulse; therefore it explains neither—i. e. a sense of distention does not cause the systole of either. But we may observe, secondly, that the energy with which the contractile action in either case is accomplished, depends upon the degree of distention with which either the heart or arteries are stimulated. This opinion is wholly at variance with the statement made by Mr. Lisart, that "the pulse is rendered fuller by the same means that it is rendered quicker, viz. the increased action of the heart, the increased stimulant power of the blood, and the velocity of the blood in the veins." As I have a few observations to make on the pulse, I shall purposely defer these till a future occasion, and content myself with remarking here, that, with certain limitations, the quickness of the pulse is increased directly by a quickened action of the heart, and indirectly by the increased action of the blood in the veins; but, not to insist that these may be effects consequent on, as frequently as causes productive of, a quickened arterial circulation, yet the stimulating power of the blood cannot ever produce it, since a stimulus becomes such only by direct application to the part stimulated—in this case the muscular coat of the artery—with which the blood, of necessity, cannot come in contact. Against the major proposition in the sentence above quoted, which assumes fullness and quickness of arterial pulse to depend on the same causes, it may be contended, that as the heart will act by mechanical stimuli while alive, even out of the body, and without blood, so it will not appear unphilosophical to suppose that the arteries within the body, enjoying a like vitality, may do the same, while partial or general plethora of the arteries will modify the fullness of their contractions, which will be in proportion to the tension which the plethora occasions of the nervous fibrilla distributed on their muscular coat. That distention is only one of the causes, and not even always a cause, of increased fullness of arterial contraction, I shall hereafter attempt to explain.

the muscles of the thorax, might easily have been supposed a simple pneumonia, to which conclusion both percussion and auscultation gave some countenance. But the expectoration, which in all chronic affections of the organs of respiration is exceedingly various and doubtful, would seem to be entitled, in the single case of pneumonic inflammation, to be really considered as conclusive evidence of this affection. Such, at least, is the doctrine maintained, on the sure ground of experience, in the writings of Andral.

OBSERVATIONS ON THE ALBATROSS.

By GEORGE BARNETT, Esq. M.R.C.S. &c.

THE albatross genus (*Diomedea**) is thus defined. Three toes, entirely joined by a web, but without any spur or toe behind; the upper mandible curved downwards near the point. It arrives at the length of three feet, and the wings from point to point have a spread of from eight to fourteen feet. I have heard it asserted that specimens have been shot, and the wings found measuring twenty feet, (the plumage of those birds being entirely white) but I have never myself seen the spread of the wings greater than fourteen feet. The bill is of a pale dirty yellow; the lower part of the legs naked; and, as well as the feet, of a flesh colour.

Cuvier says of this genus that they are the largest of the water birds. "Leur bec, grand, fort, et tranchant, a des sutures marquées, et se termine par un gros croc qui y semble articulé; leurs narines sont en forme de rouleaux courts, couchés sur les côtés du bec; leurs pieds n'ont point de pousse, ni même ce petit ongle qu'on remarque dans les pétrels. Ils habitent tous les mers Australes, vivent de frai de poisson, de mollusques, &c."—*Regne Animal*, tom. i. page 554.

Respecting the name, albatross, given to this bird, it is observed that the first Portuguese navigators called the boobies, and other sea-birds, *alcatros*, or *alcabras*.

* *Diomedea*, nom ancien de certains oiseaux habitants de l'île de Diomède, près de Tarente, et que l'on disait accueillir les Grecs et se jeter sur les Barbares.—Cuvier, *Regne Animal*.

Dampier applied this name to an actual kind; Grey changed it into *Diomedea*; and Edwards into *Albatross*. The French name these birds *mouton du cap*. There are several species enumerated, but it will require frequent and cautious observation previous to the determination of a new one, as they vary so much in plumage from sex and age.

On the 1st of January, 1803, I had an opportunity, during a passage to New South Wales, of examining a specimen of the *Diomedea fuliginosa*, or sooty albatross, which was captured (with a hook and line) in latitude 39° 40' south, and longitude 101° 5' east. The wings, when expanded, measured six feet eleven inches from one extremity to the other: it was named *pro* by our sailors. The bill was of a shining black colour, with a distinct white membrane passing about two-thirds down the lower mandible; the legs were naked; and as well as the feet, of a flesh colour; irides brown, and a circle of white feathers surrounded the orbit; the head, neck, throat, and back, of a sooty colour; breast and abdomen greyish; wing coverts of a light grey; the pen feathers of a light black; the tail feathers above of a sooty, inferiorly of a light grey colour; the feet had each three toes, united by a web, slightly serrated at the edges; the first toe had five, the second four, and the third three phalanges.

On the 3d of January another specimen was caught in latitude 40° 34' south, and longitude 107° 18' east, which differed in plumage from the preceding by having the sooty feathers on the head and back intermixed with white, which difference of plumage may have depended on the age, as the sex of both birds were the same, (males).

On the 5th of January a specimen of the species named mollymawk by our sailors, the mountain albatross of the Americans, was captured in latitude 40° 6' south, and longitude 111° 49' east. This I suspect only to be a young specimen of the large wandering albatross. The bill was of a pale dirty yellow; the head, neck, breast, and abdomen, of a beautiful snowy whiteness; the back black, intermixed with brown, which again becomes of a snowy whiteness near the tail; tail feathers above black, underneath white; vent white; irides brown; orbits surrounded by a naked skin, of a light blueish colour,

with a tuft of black feathers near the inner part of the orbit; legs and feet of a flesh colour; the wings, when expanded, measured five feet from their extremities.

Two specimens of the large white, or wandering albatross (*Diomedea exulans*) were captured on the same day, soon after the preceding, by a hook and line, the bait being a piece of salt pork, having light winds at the time. When these birds were hauled on board, they excited surprise by their enormous size as they lay on deck with wings expanded, half-drowned from having been dragged some distance through the water. The plumage slightly differed in the specimens; one having the upper part of the head and back of a beautiful pencilled white; the other had the upper part of the head and back of a black colour. One measured fourteen feet from the extremity of one wing to that of the other, and the other was of the following measurement:—

	Feet.	Inches.
The expanded wings	10	4
Length of the body	3	0
Length of the bill	0	7
Foot when expanded	0	6

The skin, on dissecting the birds, was found to contain a quantity of oil. A cluster of tumors, of a cartilaginous nature, was found attached to the web of the foot of one of the birds.

The pharynx and oesophagus are capable of great distention; I could easily place my fist into them; they must, consequently, be capable of swallowing fish of a large size. At certain seasons they retire to breed on rocky islands, as the Crozettes, Marion Islands, &c. &c.; and at that time only a few solitary individuals are seen in those latitudes, where at other times they are very numerous. The same remark applies also to the pintados, or Cape pigeons, who also retire to rocky recesses, for the purpose of incubation.

The muscles used in flight are of very large size in these birds; and the length of time they remain on the wing, and the distance they are capable of flying, is astonishing; they may be seen passing rapidly without an impulsive movement of the wings for a long time. Even the booby, (*pelicanus sula*) which is diminutive in comparison of size and strength to the albatross, has been known to fly an immense distance in a

very short period of time. Respecting this bird (the booby) there is the following remarkable occurrence, copied from a Calcutta paper (John Bull) of April 5th, 1830:—

"On the 23d of March, 1830, at 2h. 30m. p.m. in latitude $8^{\circ} 5'$ north, and longitude $83^{\circ} 55'$ E. in the Barque *Irt* of Whitehaven, outward bound to Calcutta, a booby alighted on board, to the left wing of which was attached a small piece of wood, with the following inscriptions. On one side, "Ship, *Rome*, 140, from Salem for Calcutta." On the other side, "latitude $10^{\circ} 0'$ north, longitude $87^{\circ} 00'$ east; all well." So that calculating from the above positions, in twenty days the bird had flown 217 miles in a south, 58° east, or south-east by east $\frac{1}{2}$ east directions; but probably it had flown double or treble that distance, as it is not likely it would always fly in a direct line."

On dissecting the head of the albatross, I observed imbedded, in a bony cavity, situated immediately over the orbit, a gland, which was covered above by a dense fascia. The cavity to which the gland corresponded was of a semilunar form, and situated over each orbit; it measured in the specimen I examined, after the removal of the gland, one and three-quarters of an inch in length, three quarters of an inch in breadth, and half an inch in depth. At the anterior part of this cavity, or depression, a small portion was left membranous, excepting a minute orifice, permitting the passage of what seemed to me to be an excretory duct, but the course of which I lost soon after it had penetrated this membrane. The floor of the cavity was perforated by numerous minute foramina, probably for the passage of nutritive vessels to the substance of the gland. This gland is found in most, if not in all, the aquatic birds, but varies in them, both with respect to exact situation or extent. On the dissection of the common duck, I found it, not imbedded in a bony cavity, but situated on a dense fascia, slightly projecting over the superior and posterior margins of the orbit. It is similarly situated in the boobies, and others. In the gull-tribe (*larus*) it is situated in a bony depression over the orbit, but more superficial than in the albatross, and extends over the cranium so as nearly, if not actually, to touch the gland on the opposite side, and both ex-

tending to go to cover the anterior part of the cranium.

It is difficult to conjecture the use of this gland, as those possessing it have also a lachrymal gland in the usual situation. I could not observe in the ducks and others any excretory duct excepting in the albatross; and even in it I would not decide on its being actually a duct unless opportunities occurred for other dissections. Cuvier thus alludes to this gland. "Les oiseaux du genre de canards, et d'autres oiseaux d'eau et de rivage, ont un corps glanduleux, dur, grené, qui occupe toute la partie supérieure de l'orbite, et se contourne en arrière pour suivre la courbure de l'œil. Dans le morillon (*anas fuligula*) il est si large qu'il touche son correspondant par dessus le crâne. Ce corps parait tenir lieu de la glande lacrymale: je n'en ai cependant pas encore vu le canal excréteur." *Léopold d'Anstomie Comparée*, tom. ii. page 440.

In the albatross, this gland being found of a large size, it is not improbable that the excretory duct may be traced; but it can only be by patient dissections and careful observations. Can this gland be intended for an oleaginous secretion?

London, September 23d, 1831.

CHOLERA.

[We received a copy of the following letter from Dr. Gibbs, to the Editor of the Edinburgh Medical and Surgical Journal, some time ago, but delayed its publication, that we might not anticipate our respected contemporary.]

Our joys here are much damped by the cholera, which made its appearance at St. Petersburg on the 14th of last month, and has since that time made rapid progress. It appears to be an affection of the nervous system of the stomach and intestines, the solar plexus being the point of sympathy. The aged, infirm, and those of broken constitutions, especially the ill fed and habitual drinkers, are the victims. The heat has for these weeks been great, with a want of rain, and the winds with scarcely any variation from the east, and with frequent gales from N. E. and E. S. E.; the trees are much blighted; and it is remarkable that since that period almost all have complained of a

tendency to diarrhoea; in some cases profuse. Nearly all the cases of cholera may be traced to eating salubrious and crude vegetables, as cucumbers, melons, radishes, &c. of which the Russians are so fond; the use of ardent spirits, and afterwards drinking iced water, or quass; their common beverage, well iced, and this too during a state of perspiration. One of the Russian fasts, of a fortnight duration, during which times the lower classes (*Mousicks*) are very badly nourished, has just finished; and this too, no doubt, has aided the progress of the epidemic. I have heard many medical men insist on its non-contagious power, though the public authorities have judiciously acted as if it was contagious. Opinions on this point have widely differed; but now that this capital has fallen within the circuit it has been making for this last year and a half in Russia, we have a right to be guided by our own experience; at least regarding its effects here.

Pain in the head, lowness of spirits, want of muscular energy, pain more or less at the præcordia, with *formica, borborygmi*, and nausea, with excessive thirst, are the first symptoms. The contents of the stomach and lower intestines at the time of attack are speedily evacuated; vomiting and purging of a thin glairy watery fluid supervene; the pulse soon sinks; the extremities, tongue, and face, become cold and livid; and the eyes are considerably sunk in the orbits. Nearly from the commencement of the attack cramps and spasms of the arms, legs, &c. take place; and the spinal cord appears also to suffer. The convulsions of some before death are great; others die without a struggle; and many have retained their mental faculties to the last. On dissection, the vital organs, as the brain, the lungs, the heart and its vessels, and liver, are found gorged with blood; while the stomach and intestines are scarcely changed. There seems to be a suppression of the various secretions, which are thrown back on the system; and the blood appears to be suddenly determined to the inward parts, producing a high state of congestion.

Warm water given early affords relief, and if a bitter taste is produced (what is first vomited is sweetish); a return of the bilious secretions may be looked for. Stimulants, frictions, the vapour and

warm bath, preceded by cold ablution; to produce more steady secretion; very found useful in the earlier stages of the Naval Hospital. Stimulants to the fringes of the stomach and abdomen, the course of the spine; and the inside of the legs and arms; pediluvia, and, in short, bladders, heated bricks, &c. and whatever can be administered to restore the heat of the body, and excite perspiration; and with this view warm drinks of mint and elder-flower tea have been liberally given. With the intention of restoring the suppressed secretions, stimulant diuretics have been freely used; and Hoffman's drops, with Spir. Ammon. Aromatic. et Ol. Menthae, &c. were given to allay nausea.

Venaesection is found to be useful only at the early stage of attack, and especially in robust and plethoric habits, before the pulse sinks. The patients in civil life are generally brought late to the hospitals appointed to receive them; and so with the military and seamen, who are under the guidance of their superiors; and to this circumstance we owe, at the Naval Hospital, the success with us, at the early stage of the disease. The magistry of hiomata has been much used; but I can not speak in its behalf in the very early stage. The acetate of morphia has been thought useful; but no regular plan has yet been laid down, owing to the difference of opinion. Small doses of calomel, with compound extract of colocynth (and does by some), are given to induce a secretion of bile, and to rouse the chylipoietic organs when nausea has subsided. Our formula for the exhibition of calomel is Calomelanos gr. ii. cum. Opia gr. 4 omni bitorio. Castor oil has been but seldom given. Whether the disease is altered by change of climate, or by having to contend with a different class of people, generally spirit-drinkers, certain it is, that the East Indian practice of venaesection, to a large amount, with half scruple and scruple doses of calomel, does not do here.

Some have fallen into a low typhus state after recovering from the primary attack of cholera, and have been carried off. With some the symptoms have been so rapid, that in four, six, or eight hours, death has followed, but often from twenty-four to thirty-six or forty-eight hours elapse, before this event takes place, half or two-thirds of this time being passed at home, without

proper assistance. So much depends on the means and opinion of each medical practitioner, and therefore, in such a variety of practice, that it is impossible to lay down any precise rules for acting. Having stated several facts, you will readily conceive what description of people are the most frequent subjects of this disease, and what means should be resorted to as prophylactic, as to diet, clothing, &c. In ninety cases in one hundred, the common victims are the irregular, the dissipated, those with broken constitutions, and impaired health; the badly-fed, the badly-clothed, and those who indulge in intoxicating liquors, or the excessive use of ice and ice liquors. A summary part have not been exempt from this derivation to the lungs, and consequent tendency to diarrhoea. I have, therefore, avoided every thing indigestible, vegetable, especially in the raw state, as salad, cucumber, radishes, &c. &c. lettuce, vegetables in soup, oxen, and mutton, styles of which I add two table-spoonfuls of vegetable to a proper quantity of boiled water; and take a little port wine with diluting drinks, absolutely keeping the body and feet warm, and avoiding cold liquors. The bile should be carried off by gentle purges if necessary, and the mind kept in a tranquil state; for the action of fear increases this tendency to diarrhoea, and predisposes to the disease. I am persuaded, especially amongst the weak and nervous. Many wear flannel over the abdomen. The night air and dew should be scrupulously avoided; and it is of great moment, to sleep warmly covered.

Many bodies have been opened, and the appearances before-mentioned have almost always been found. The medical men, and those concerned about the sick, have not been affected, and of this I know many instances in private houses; and I have every reason to think, with other medical men of my acquaintance, that it is an epidemic, not contagious, but acting on the predisposition, habits, and constitution of the persons so predisposed. A patient of mine at the Naval Hospital, of a cachectic and scorbutic habit (who, a month ago, was at death's door, with a gangrenous ulcer of the leg), and was in a convalescent state, was attacked with vomiting, purging, and cramp, early in the morning of the 20th ult. Notwithstanding the ready

assistance that was afforded, he expired on the 14th day. From the great precaution of avoiding communication, this man, who was confined to bed in the hospital, must have been affected, I think, by predisposition idiopathically; for he is the only instance of the kind I have had under my care in the hospital, every one of my patients having escaped. As he lay in the ward at the time, and was attended by those of the ward, we might look for contagion to spread, did it exist; but, thank God, all are well. He was of course moved into a different room after the attack, for the sake of quiet; but the usual attendants waited on him. *If it is contagious*, it is so, in my opinion, only in those who have led irregular lives, are badly nourished, and of the constitutions I have before mentioned, and who, consequently, have not sufficient energy, or *vitalis*, to withstand the action of the epidemic. What the peculiar state of the atmosphere, producing this sickness may be, any more than the possibility of goods, as, hemp, flax, hides, cotton, &c., contaminating the atmosphere on being unpacked, and by little and little influencing the surrounding medium, I know not, nor do I believe it will be easily detected. I should add, that not only those concerned about the sick, as parents, nurses, and so forth, are not affected; but that no more danger arises from opening the bodies of those dead of cholera (as we have it) than under common circumstances. Those dying of *typhus gravior*, or gangrene from enteritis, &c. are far more dangerous.

How long the epidemic will run its course before it attains its acmé, I cannot say. It generally increases for a month or six weeks, by which time many of those subjects I have mentioned, have disappeared. This was the case at Moscow and Riga. No doubt its duration is longer, the greater the number of inhabitants or persons susceptible of its action, and the more they are crowded together in low dwellings and confined air. Quarantines, I think, should be maintained; and we can do no harm by acting as if the disease were really contagious. Might the contagious air exist in goods that have been packed and confined, yet, as I have already said, the contagion be free, or not exist in the human body, at least in such a shape as to affect others?

I forgot to say, that when venesection

has been employed, the blood drawn is very black and thick, and such it appears at the necroscopic inspection in the great vessels about the organs alluded to, almost of the consistence of tar sometimes, so completely is it carbonized. Venesection, therefore, may be of service in plethoric robust subjects, in the early stage, to lessen the mass of the circulation, acting mechanically, and thus affording the heart and arteries freer action, by stimulating them, by removing the plethora; for I look on it here as no question of inflammation. It is a question, and an urgent one, of life and death, before inflammation and its phenomena have time to take place. The time is too short, and the progress of the disease too rapid, for inflammation to exist in such a shape as to produce organic changes. I might say more; but I have not paper sufficient, luckily, to encroach longer on your patience.

St. Petersburg, July 1st, O. S.
18th July, N. S.

ON DISEASE OF THE COLON AND LARGE INTESTINES, SIMULATING HEPATIC AFFECTION.

By T. NUGENT,

Member of Apothecaries' Hall, Dublin, &c. &c.

I AM induced to offer the following remarks, chiefly to the junior members of the profession, from the circumstance of my having so frequently, in the course of my experience, met with cases illustrative of the subject to which they relate. Chronic affections of the colon, proceeding from the irritation of feces long retained in the cells of the large intestines, I have found to be productive of a variety of symptoms which would seem to indicate liver disease: such as fulness, pain and tenderness of the right side aggravated by pressure, languor, diminished appetite, furred tongue, high-coloured urine, &c.; but which, by the steady and regular use of purgatives (of the resinous kind more especially), with the daily use of large emollient enemata, saline aperients being occasionally interposed, have, upon the expulsion of hardened and apparently long-impacted feces, completely disappeared and left the patient restored

to 'perfect health.' Nor is it the least important benefit derived from this treatment, that the patient is frequently saved by it from the deleterious effects which mercury produces in some constitutions—mercury, which, when rashly administered and long persevered in, leads to such debilitating consequences and the continuance of that state of the system most favourable for the disease in question. It has been my lot, in many instances, to observe, with much pain, mistakes of this sort committed: intestinal affections confounded with and treated as diseases of the liver, while the liver was, in fact, no more than functionally, and that too but slightly, deranged; with the usual bad effects of long confinement, and unnecessary mercurial courses; more strongly manifested, of course, when delicate females were the subjects of such injudicious management.

I shall give the details of a few out of several cases which have come under my observation; my object, as I have already hinted, being simply to draw the attention of practitioners to complaints of the kind in question, and to their proper exciting causes. The treatment here detailed, it will be understood, is not laid down as any thing more than a mere outline; it is to be modified in each particular case, according to circumstances, especially should there be appearances of inflammatory action supervening—when the methods of depletion and antiphlogistic remedies will, of course, be adopted; but after the subsidence of which, the purgative treatment, especially as it will act best upon the large intestines, will be adopted. It is my wish to confine myself to such facts, in the history of my cases, as will be most useful for the illustration of my views.

June 20th, 1829.—Miss —, æt. 22, of a delicate and spare habit of body, and of a marked nervous and lymphatic temperament. Complained for several months of a dull pain and tenderness, increased upon pressure, in right side, near the margin of the ribs, and extending upwards. Her countenance sallow; her appetite, previously good, now defective; her spirits low, with feelings of great languor and debility, slight exertion producing dyspnoea, palpitation, &c.; her pulse quick, but regular; the urine highly coloured, sometimes depositing a lateritious sedi-

ment; the bowels scantily, although daily opened; the feces generally tinged with bile. For these complaints, in the country where she resided, she had been twice salivated, blistered, &c. and subjected to a long and rigorous confinement whilst under the mercurial influence; and notwithstanding all these, with scarcely any mitigation of pain in right side, but considerable aggravation of nervousness and debility.

Judging from the history of the case, and from the circumstances; the feces almost always appearing duly tinged with bile, indicating that the liver could not be much functionally or organically deranged; the appearance of the side, which was swelled and gibbous, the seat of pain and tenderness, which corresponded with the great arch of the colon; and judging, also, from the non-beneficial effects of the mercurial treatment, blisters, nitro-muriatic baths, &c., which she had previously undergone, it occurred to me that these symptoms might be caused or depend upon the presence of hardened feces, not duly evacuated, but accumulated and lodged in the cells of the colon and larger intestines, producing the effects which have been already detailed; I determined upon trying the effects of regular and full purgation for a short time, and, if possible, effect the removal of the offending matter. With these intentions I directed her to take the following:

R Extracti colocynth. comp. Pulv. scammonii. ℞℥i. sing. ℞. Pulv. ipecacuanhæ gr. iv. Olei carui. gutt. v. Ext. Hyoscyam. Nigr. gr. viij. M. f. pilulæ xiv. quorum sumantur duas vel tres I.I.S. om. nocte. Diebus tribus interpositis sumat. æger. haust. seq.:

R Sulph. magnesiæ ʒij. Carbon. ejusdem. ʒj. aquæ. Mentb. sat. ʒij. tinct. sennæ com. ʒij. M. stat hæustus, et mane quotidie ad tres vel quatuor dies, Injiciatur cœcæ.

And also to use the following liniment:

R Alo. camphor. de terebint. utroque ʒvi. T. opii ʒij. M. f. linimentum, quo bene affricetur pars qua dolet mane nocteque.

After the fourth day some hardened feces were observed to pass, which increased in quantity on the fifth and sixth. I then interposed a castor oil purgative draught, omitting the other remedies, except the pills, which I directed to be continued every night until further no-

more period, to degenerate the constitution, particularly in those of a strumous diathesis, or predisposed to pulmonary consumption.

INHALATION OF CHLORINE.

To the Editor of the London Medical Gazette.

SIR,

If you should deem the following article worthy of a corner in your valuable pages, you will much oblige me by an early insertion of it.

I have long been impressed with the opinion that, in the treatment of diseases of the lungs, and particularly in phthisis pulmonalis, much good might be derived from chemical agents acting immediately on the lungs, without previously going through the whole mass of blood; or, in other words, without first being acted upon by a living machine, and thereby being wholly or in part destroyed long before they reach the part for which they were destined. Through the recommendation of Dr. Eliotson I was induced to make trial of the chlorine, or a saturated solution of the oxomuriatic acid, in pulmonary consumption, on a patient of mine; and the result has been, as far as I have used it, most decidedly beneficial. My idea of this remedy in consumption is this; when phthisis is produced from an insulated ulcer of the lungs, I think I may say that chlorine will, in most cases, if not in all, have the desired effect of restoring the patient to health; but not so when the lungs are studded by tubercles,—then I think nothing but death will relieve the sufferings of the sufferer. A modern author says, there is more danger in pulmonary consumption when it proceeds from tubercles, than when it arises in consequence either of hæmoptysis, or pneumonic suppuration. In the last instance the danger will be greater where the abscess breaks inwardly, and gives rise to empyema, than when its contents are discharged by the mouth. Now an insulated ulcer of the lungs, whether arising from a rupture of a blood-vessel, or from whatever cause, however hopeless the case may appear, sometimes admits of a cure; but that a recovery can be indulged in when the substance of the lungs is studded by tubercles in a state of suppura-

tion, would be a vain and foolish hope. The unkindly nature and secretion of these ulcers, their number, their inaccessibility to any direct application, the impossibility of excluding the atmospheric air from them, or obviating its influence; and, lastly, of preserving the morbid lungs in a state of quiescence, constitute a chain of circumstances through which the arm of science, however ably directed, will never break.

Mrs. W—, about 35 years of age, applied to me on 6th June, complaining of an acute pain in the chest, with occasional palpitations of the heart, difficulty of breathing, accompanied with a quick, full, and irregular pulse, and a dry short cough. On my first visit I bled her freely, from a full stream to twelve or fourteen ounces of blood, and ordered her the usual medicines common in those complaints. She had, a few years ago, an hæmoptysis or hæmorrhage from the lungs, which had now returned, but not to an alarming extent. She was also pregnant with her seventh or eighth child, which, however, was favourable to her. The remedies employed were of the active kind, and she found great benefit from them; and all the most urgent symptoms were greatly relieved, except the cough, which continued unabated in violence, and became the source of great uneasiness both to herself and to her husband. After a few days the cough, which at first was dry, was now attended with an expectoration of mucus; which soon gave place to a most decided purulent discharge, streaked with blood; and, in the course of the day, she expectorated at least a pint of fetid pus. She was in this state I dare say a month, when Dr. Fox was called in, and he prescribed a mild tonic mixture, as likewise a mixture for the cough; which, however, she did not continue a sufficient length of time to benefit her. The inhalation of chlorine had been named to her husband by me; and he became very anxious that its trial should be put to the proof, rather than persevere in the old plan, known as being "well established as unsuccessful." I therefore decided that she should begin inhaling the chlorine without further delay; and I began first with twenty drops in a pint of boiling water, three times a day, gradually increasing it till three drachms were inhaled each time; with an addition of 20 drops of tinctura opii to the one ounce

to bed. In this manner she continued to inhale it for five months, with a steady perseverance, to conquer the cough, which at length she accomplished, and lived to surprise her friends and relatives. She has since been delivered of a healthy child, and continues perfectly free from cough, and feels no other inconvenience than a wish to indulge her voracious appetite.

This case is worthy of remark, because, if she had been treated in the old jog-trot plan, she must inevitably have sunk into her grave. I think every medical man would do well to endeavour to bring it into general use, because I am sure many persons might be restored to their families who otherwise would fall victims to the disease.

I have another case under my care, but which has not been long enough under the action of the chlorina, to enable me to report its progress; but the patient is a great deal better since she commenced using it.

Yours obedient servant,
RICH. HARRY,
Surgeon.

Washington, Sept. 20d, 1831.

MEDICAL GAZETTE.

September 30, 1831.

"Incomitibus, interdam miti, interdam Atque
tis Medicis tueri, potest, modo, quod in nobis
licum sit, dicendū periculum non recuso."—Cicero.

CONCLUSION OF THE VOLUME.

With the present number, we close another volume, and the fourth year of our editorial labours. At such a moment it is natural to indulge in a retrospective glance at our past course, and to look forward to the path which stretches out before us. As to the latter, whatever our hopes may be, we shall not lay ourselves open to the suspicion of descending to the quackery of high-flown professions, or to the extravagant promises; but, whether it is known to all our readers, or not,

by the past, both they and we may reasonably judge of the future. At the time this journal was begun, the field was in the possession of a successful rival, who exultingly declared that our success was "impossible," and we knew that many, even among those who were most friendly to our undertaking, doubted whether the public ear could be so far disabused, from the effect of long-continued misrepresentation, as to prefer a faithful and unvarnished record of passing events to a narrative in which truth and falsehood were so intimately blended that no one could possibly make out, when he perused it, how much he was to believe and how much he was to set down to the fancy or the malice of the writer. To these our only answer was—that, truth must prevail—and it was not long ere the result proved the accuracy of our prediction.

It is to the character of this journal for fidelity in its statements, that its success, under circumstances which have been fatal to so many others, is in a great measure to be attributed—we do not mean that inaccuracies have never found their way into our pages; but intentional misrepresentation, even of the minutest fact, certainly never has; and accidental errors have always been candidly corrected as soon as they were made known to our readers.

To these circumstances, we doubt not, we are indebted for the great increase in the number of our correspondents, and for our finding among them men of the highest reputation in the profession, who had not previously been in the habit of contributing to any periodical. With these advantages, fresh motives for exertion are opened to us, while we, at the same time, look upon them as indemnifying that our professional brethren approve of our general principles, and are convinced, notwithstanding the unkindness of assertions of our interested contemporaries, that it

beast and bird, and victrola on questions of medical policy may be entertained, and fearlessly expressed, without employing the language of Billingsgate, or violating those decencies which, however disregarded by the lower class of political adventurers, and caterers for slanders to Sunday newspapers, have yet been always deemed contemptible and infamous in the paths of science. A curious but convincing proof, too, of the sentiments on this subject entertained in foreign countries has recently come under our notice, and is worth relating. Two weekly medical papers were established in Paris not very long ago; one under the name of *La Lancette Française*, the other, the *Gazette Médicale*; — the latter succeeded so well, as to require no change; but the conductors of the former soon found the name so much against it, being in fact looked upon as a sobriquet, that they deemed it expedient to merge the objectionable designation in the more popular one of its rival; and the journal has now become the *Gazette des Hôpitaux*, the original name being only exhibited in a small and humble type, to mark the identity of the publication. In Philadelphia, too; a "Medical Gazette" has been announced, from the Editor of which, as well as from various others of our brethren on the other side of the Atlantic, we have received assurances of their high approbation of the principles of this journal, from which they quote very largely, leaving our opponent totally unnoticed.

The volumes which we have now brought to a close are undoubtedly the best we have yet been able to offer to our readers, a circumstance entirely depending upon the great quantity of valuable matter which has been placed at our disposal. The present number, for example, contains the text of a set of lectures on "calculus distans," by Mr. Brodie, which constitute a complete

treatise on that subject, and present as valuable a series of practical papers as any medical journal can boast of having ever given to the public. The able papers of Dr. Prout we formerly took occasion to notice, and have only to repeat that they open a new and important field for investigation, and which we hope will be pursued by those who can grapple with the subject with that tempered zeal which best promotes the cause of truth. To the lectures of Dr. Elliottson in our present volumes, we need scarcely direct attention: they will command it from those who can appreciate the advantages to be derived from clear, faithful, and lively records of clinical practice. Nor are these remarks less applicable to the lectures of Dr. Graves, with regard to which our only regret is that we were not able to present our readers with more of them. We hope, however, to be under still larger obligations to both these gentlemen in our ensuing volumes. The comparative anatomist will find a mine of information in the elaborate papers of Mr. Parker; and practitioners of every description a little code of law, as it relates to medicine, in the valuable course of our learned brother, of the long robe—Professor Amos.

If space permitted, it would afford us pleasure to express our gratitude in detail for the many other valuable contributions we have received; but they are too numerous to admit of more than a general acknowledgment, and an expression of our earnest hope that they may long be continued.

COLLEGIUM-WAKLEYANUM.

A ~~few~~ of the disappointed expectants — the would-be professors and fellows of the defunct Collegium — having no other immediate employment on hand, were thinking it seems, in the course of last week, of getting up something

In the shape of a funeral meeting, to bring a requiem over their departed hope, and to contribute to their mutual condolence. But the undertakers, demurred; they would not consent to any thing of the sort; insisting that it would be a shameful kind of exhibition, and inevitably lead to disclosures of no very agreeable description; and those, too, they maintained were wrong who thought that this was a good time for exciting sympathy and gathering subscriptions. They accordingly, by "a very judicious decision," postponed the GENERAL CONSOLATION (or CONVOCATION, as we believe some of them call it) until this day six months.

Even the founder himself allows the judiciousness of this proceeding; while it is ludicrous in the extreme to observe his tortuous writhings and desperate manoeuvres upon finding that his grand design is discovered—that his occupation's gone—quite gone—at least until some other new project turn up. Nor is in the least ludicrous part of the exhibition to note the expedients which he is attempting to play off, in order to keep the memory of his departed "glory" fresh and green in the minds of his country customers—these practitioners distant from town, whose subscriptions may even now be on the road, after having been long expected up to the very moment, in fact, of the extinction of the project.

With these the late President evidently hopes to succeed, by puffery and deception; and in his last manifesto, which, we presume, is intended entirely for them, ventures upon some curiously-ridiculous, if they were not at the same time egregiously shameless, assertions relative to what he would have them understand to be the cause of the failure of his medical-college castle-building. It is, forsooth, the state of the public mind, unfavourable to the adoption of medical schemes of this sort, while cer-

tain great questions of general politics are in agitation! How beautifully plausible this must sound to people out of town! And then there is the bombastic announcement of the worthy committee of management, whom he selected for his fellows and *confrères*, and whose number he pretends to be anxious to increase.

We have more than once analysed the Wakleyan Committee; we have fully described the ingredients of which it is made up; yet there are still one or two little facts connected with it, of which we believe the public are not duly aware. If, however, they only recollect the foul and fraudulent practices of which the prime mover of the said Committee has been repeatedly convicted, they will not be surprised at what we are going to state; but if otherwise, what will they think, on being informed, that this precious crew of *confrères* and college-founders includes not only certain persons entrapped and snared into an association with them, but,

1. Persons who have never manifested by their presence any meeting of the Committee, however "full," and,

2. Persons whose names have been unceremoniously published in the list, without the leave or license of the owners!

These are facts, which we shall leave with our readers. We could readily give names, if it were worth while to bestow more publicity upon the proceedings of such persons. We shall not, however, have any hesitation in giving them at large, if we be in the least provoked to a disclosure: only let our veracity be disputed.

NEW MEDICAL PROFESSORSHIP.—The establishment of a Chair for Pathology, in our University, has just been determined on by the Crown, though, we understand, no salary is to be attached to it. Our distinguished townsman, Dr. John Thomson, is appointed Professor. *Edinburgh Paper.*

REPORTS OF CASES OCCURRING
IN PUBLIC INSTITUTIONS.

NAVAL HOSPITAL OF ALEXAN-
DRIA.

*M. Clay's Remarks on the enormous Tu-
mor—110 pounds weight (see our
last Number)—which he extirpated,
with the most complete success, from
the Scrotum of an Arab of Upper
Egypt.*

THERE were so many ligatures to be
applied that the operation was very con-
siderably delayed in consequence; but
the resolution which I formed of getting
rid of the mass, in order to avoid the
danger of excessive delay, was suggested
by what I observed in the course of the
proceedings; namely, that the vessels
diminished in bulk as they were traced
nearer to the trunk; and I recollected
besides, that the scrotum received but a
few arterial branches from the puden-
dals. The result perfectly justified my
preconceptions; for no sooner was the
tumor taken away than the hemorrhage
almost totally ceased: I had but four
ligatures more to put on. This remark,
which I do not remember to have met
with in any author who has treated the
subject, will, I flatter myself, be pro-
perly appreciated. Of the twenty-two
minutes spent in the operation the time
employed in tying the vessels occupied
a large portion: I am sure I could have
dispatched the business in a very few
minutes, if I had formed my resolution
earlier. Yet, methinks, the time cannot
be complained of, if it be recollected
that Imbert Delonnes spent two hours
in removing a similar tumor from
Charles de la Croix.

I had no hope of preserving the testis-
cles, when once I found the excessive
length and morbid condition of the
cords; nor did I think it necessary to
search out the spermatic artery, involved
as it was in unbound tissues;—the more
so, as it would have so materially pro-
longed the operation: but this was what
afterwards retarded the cure. The liga-
tures with which the spermatic cords
were tied were carelessly cut too near
their knots, whence it happened that
they got out of sight: eventually, the
knots were found buried in the thickness
of the cords; nor had any division taken
place.

I am not aware that a tumor of the
same volume has ever been removed.

The one which Raymond extirpated
weighed but twenty-nine pounds, and
the patient died in six hours after the
operation. The tumor of Charles de
la Croix weighed but thirty pounds;
and that of the cook of the convent at
Cairo, which M. Larrey removed, weighed
only six pounds. The largest tumor
ever removed hitherto, was, I believe,
that which M. Delpach extirpated, and
without loss of life to the patient;—it
was thirty-six pounds in weight.*

A few general remarks on the nature
of the disease may now be added.

Under the name of *sarcocele* we have
long had, in books, accounts of scrotal
tumors analogous to the one men-
tioned above. But the older writers
confounded the complaint with affec-
tions of the testicles, either from want of
sufficient accuracy of observation, and
from want of opportunity of witnessing
any considerable number of cases of the
sort. Practitioners, however, of more
tact, and who have studied the disease
in countries where it is endemic, have
put the matter far the future, beyond
the reach of confusion. I need only
allude to the curious cases reported by
MM. Larrey, Titley, Roux, &c.

Androma, or the *Barbadoes* disease,
and *elephantiasis*, are other names by
which the complaint has been design-
ated. The last is the title which
seems to me most appropriate.

The complaint is evidently endemic in
Egypt, and much more frequently met
with in the Lower than in the Middle
or Upper division of the country. In
Upper Egypt it is extremely rare. Of
this fact I have had an opportunity of
being convinced during a tour which I
made through Alexandria, Rosetta, Da-
mietta, Mansoura, &c. At Rosetta
alone I saw four persons labouring un-
der the disease, one of them a Sheik,
whose tumor could not weigh less
than 60 lbs.: it was 21 inches long, and
31 in circumference. It was supposed,
too, that there were then at Rosetta not
less than three hundred individuals
afflicted with elephantiasis of the limbs:
at Damietta, also, it was said there
were as many; but, what is rather re-

* The tumor removed from Heo Leo in April
last, at Guy's Hospital, weighed 66 pounds 8
ounces. (See Med. Ann. present vol. p. 24.) In
the case of which Mr. G. Bennett gives an ac-
count, p. 208, the tumor weighed probably not
less than 96 lbs. at Constantinople; but its removal
in this case was not deemed advisable to be at-
tempted.

marked, not so many, at Cairo, though the population is here so incomparably greater; but it is met with in Algeria and Armenia; it may add, of those tumors I had drawings taken of.

Authors are divided as to the causes of the disease. Some attribute it to peccant humours, or peculiarity of constitution. If this were the true cause, it ought to be more general; though, as far as I could observe, those affected with it were perfectly well in every other respect, the disease being entirely confined to the scrotum. Those who think it identical with elephantiasis seem to have better reason for their opinion; for the tumors present the same character, and many patients who have the one have the other; though this is by no means very frequently the case.

I know not how far venereal may be efficient in giving origin to this malady, but it can scarcely be the sole exciting cause, as we see in Europe, where syphilis so much prevails. In my opinion, the principal circumstances which operate in its production are these: naturally large scrota, with an inordinate activity of the exhalant system;—predisposing the parts to enlargement, especially in warm climates. However, we must not be too positive as to the effects of high temperature, for it happens that we do not find the disease in countries where the heat is far more considerable, as in Higgaz, Cordofan, Senнар, and other regions of the interior of Africa. Probably there must be also taken into account the cold, damp, and many other circumstances which escape our cognizance. Some of these may be the following:—

1. Residence in damp places, as is generally the case all through Lower Egypt.

2. The smart gales which blow constantly along the coast.

3. Deficient and improper nutriment.

4. The loose lower garments, which allow the scrotum to hang and be exposed to rubbing.

5. Abuse of the custom of cold ablu-tion, daily applied to the genitals, according to the Moslem institutions.

However this be, the disease usually begins with an enlargement of the parts, attended by feverishness, vomitings, and headaches; these subside, but the enlargement remains,—not painful nor over hot, but in a decidedly chronic form: and it will often remain stationary

for a long time. This I have often witnessed. But when the enlargement progresses, it is by intervals more or less approaching to the acute state; and at every interval the volume is found to be augmented, until, perhaps, it attains the bulk we have found it in Agi-Assa. Such a tumor as this, it is true, has seldom been seen by observers: I have myself seen many in Egypt, but none of them ever equalled it.

It was my lot to see many women, also, who laboured under elephantiasis of the external labia: among the rest, one who had a pair of tumors of about 25 lbs. each; and M. Larrey, it is well known, witnessed the same thing.

With regard to treatment, I am of opinion that every internal remedy hitherto proposed by authors;—antimonials, mercurials, andorifics, &c.—if they have not proved dangerous, have at least been found good for nothing; whilst caustics and the seton have most frequently hurried on the disorder, with the disorganization of the tissues. But to dietetic and antiphlogistic treatment there can be no objections, nor to local applications, such as emollients and leeches. I have even cured enlargements by this practice, when I took them at an early stage. Nay, I cured a personage of distinction, who had a tumor the size of a child's head, and that by leeches alone. A surgeon who had the case in hand before it fell to me, had tried astringent and irritating applications in vain.

The operation is the only resource when the disease proves obstinate, and is become tormenting by its weight, volume, and increasing bulk; and the earlier it is done the better, while the integuments are sound, and fit to serve as an envelope for the penis and testicles. The vessels, too, are not then so much dilated, nor the cords nor testicles disordered, or unworthy of preservation: in short, the patient is then, in every respect, in the most favourable condition.

I need scarcely add, that I consider the mode of operating which I employed as the best that could be adopted under the circumstances.

In giving these remarks to the public I trust that my object will be understood. It is simply and briefly this:—the case strikes me as being a curious one; its history tends to confirm certain views entertained by my predecessors; and I

flatter myself, on the whole, that it will contribute, in no small degree, to throw light upon the obscure disorder in question.—*Gazette des Hôpitaux.*

MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY.

Care watched by Mr. Bernard, under the superintendence of the Clinical Physicians.

Pleuro-pneumonia of the inferior part of the right Lung—Hydatids in the Lung (?)

JOHN FITZPATRICK, æt. 31, a labourer, admitted into the hospital February 22, 1831, for the last seven years has been subject to cough in the winter, more or less severe, attended with copious expectoration, but never remembers having had any hæmoptysis. He states, however, that about six years ago, at which period he was serving in the army, he received a severe contusion under the right mamma from a spent ball, but it did not occasion any fracture of the ribs. In consequence of this he expectorated large quantities of blood during eight or nine days, but soon recovered, and enjoyed his former health. In August last he had a severe attack of fever, with cough, and great oppression of the chest; in a month he was perfectly well again; in December, however, a severe bowel complaint supervened for some days, and the cough returned. Both these were cured without any particular treatment, and his health continued good until the last six weeks, when he had a return of the cough and dyspnoea. To these have been added within the last eight days a violent pain, shooting through the right side of the thorax, from the shoulder downwards; the hurried breathing has increased, and symptoms of hectic have come on. He has been exposed to great poverty, is emaciated and weak, and complains of much tightness of the head while in the erect posture; his countenance is pale and distressed, surface chilly; some tenderness in the epigastrium; tongue furred, but not red at the tip; some thirst, bowels natural; pulse 70, feeble. Pressure on the intercostal spaces of both sides causes pain, more severe in the antero-superior, and posterior inferior portions of the right side. Percussion yields a somewhat dull sound under the right side; but dullness is well marked in the lateral and inferior dorsal regions of the right side; from about the fifth rib down. Respiration feeble over the whole lung, and particularly in the situation lying to the dorsum, where the distant crepitating rale, and some mucous râles, are felt; also, there

but less intense. The cough comes on by fits. Expectoration copious, consisting of glairy, tenacious mucus, yellowish, and streaked with some streaks of blood; mixed with this, also, there are some spots, of a thick puriform character; respirations hurried, 20; decubitus on the right side.

First Venesection ad 3x. applicator hired.

xx. parti inferiori lateris dextr.

R Calomelana. Pulveris Ipecac. Comp. aa. gr. iij. fist pulvis tertius horis sumendus.

After the bleeding the pulse became fuller, and rose to 86; some warmth, also, began to be diffused over the body; blood neither buffed nor clotted.

23d.—Had some raving during the night; complains of a burning pain through the right side of the chest; considerable tenderness of the epigastrium; some mercurial factor of breath; pulse 96; respiration 48, but the lungs seem more expansive; the murmur scarcely audible about the tenth rib, but no bronchophony; above this the crepitus is more distinct, and apparently nearer the surface.

Omittantur pulveres. Habit. Mist. Pecc. or Ext. Hyocyam. gr. x. hoid. noct. Applicator Peccat. saltem doctus.

24th.—No raving last night, but he got no sleep; violent purging, with remission and pain, came on; respiration free; the bronchitis has diminished, but the crepitus is still persistent; warmth of surface more uniform; pulse 90.

Rep. Mist. Pecc. et Pil. Hyocyam. Habit. Eucrim. Anodynum repetit.

25th.—Bowels relieved by the purgative, pain in right side the same, with some looseness throughout the chest; the crepitus very slight; countenance distressed; pulse 100, small; respiration

Habit. Mist. Pecc.

27th.—Pulse 100; respiration 48; the pain in right side the same, with some looseness throughout the chest; the crepitus very slight; countenance distressed; pulse 100, small; respiration

Habit. Mist. Pecc.

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mamma, also, on the same side, the respiration is tolerably loud in the recumbent posture, but becomes feeble on sitting up; bip-pocratic succussion gives no evidence of fluid.

Rep. Ext. Op. Aquos. gr. ss. tertius horis.

March 2d.—Expression of countenance is that of distress and anxiety; decubitus on right side; knitting of the eye-brows; gets no sleep; complains of general soreness, and the pain in his side is very little altered; pulse 76, feeble; respirations, 40; over the superior part of right lung the murmur is decidedly louder, and the expansion greater, mixed with some sonro-mucous rale; it is also rather more audible in the inferior part of the lung anteriorly, but laterally and posteriorly, on the same level, it is very feeble; the cough is very much diminished; expectoration abundant and various, possessing a mucro-puriform character, sometimes tinged with blood, and sometimes marked with spots of pure blood.

Omitatur Opium et Habt. Haust. Efferv. Salin. tertius horis.

5th.—Countenance less distressed; breathing not so hurried; pulse more tranquil, but feeble, 70; some tenderness of the epigastrium, and pain on passing his stools.

Omit. Haustus Efferv. Appl. Hirud. vi. Epigastrio. Habt. Mist. Oleos. cum Tinct. Opil. et Mist. Pect.

8th.—Tenderness on pressure nearly gone; the oil and opium mixture regulates his bowels without pain; pain in the sub-mammary region unabated; respiration much more free throughout the entire lung; the dullness is not so extensive, nor so well marked in the situation where it previously existed; no apparent difference in percussion under the clavicles, but respiration under the right is less loud than in the third and fourth intercostal spaces of the same side; gets very little sleep.

Cont. Mist. Olei et Opil. et Mist. Pec. et. Habt. Ext. Hyocynami, gr. vi. omni nocte.

10th.—Pain in chest persistent; hectic symptoms well marked—viz. rigors, followed by burning heat and perspiration; pulse feeble, 96; respiration hurried; distressed for want of sleep.

Rep. Mist. Oleos. et Mist. Pect. Habt. Gutt. Nig. xii. h. a.

12th.—Yesterday evening he again raved, and complained of the most intense pain in the right side of chest; his pulse became feeble, and he appeared to be sinking; he was ordered wine, $\mathfrak{z}i$. an ounce every second hour, and the following mixture:—

R. Mist. Camph. $\mathfrak{z}i$. Carb. Ammon. \mathfrak{ss} . somat. cochlear. ampl. quaque hora.

A blister between the shoulders.

This morning he seems better, quite rational; pulse 78; the pain has diminished; bowels not open for three days; tongue furred and dry.

Habt. Enema laxans.

Rep. Mist. et Vinum ut fieri.

16th.—To-day the pain in his chest seems worse; some tenderness of the abdomen; he is very weak and restless; no sleep.

Omit Mist. Camph. Cont. Vinum.

R Gum Arabi \mathfrak{ss} .

Aque. \mathfrak{lii} .

Syrupi, \mathfrak{ss} . fiat potus in die sumend.

Infricetur Ung. Tart. Ant. dil. pectori et Habt. hora somni gtt. nig. x.

18th.—The spleen had no effect in making him sleep; this morning he passed a small quantity of pure blood by stool, but without pain; still great uneasiness in his chest; both yesterday and to-day there have been discharges, among his spurs, considerable portions of a thin transparent membrane, of a distinctly fibrous appearance, which are found to be quite tough and strong; the expectoration is otherwise of a puriform character, streaked with blood, and mixed with a brownish sanguineous mucus. On examination of the fauces, the pharynx is found to be denuded and red, but without defined ulcerated edges. He complains of little uneasiness on deglutition, though in now slight; respiration less hurried; pulse feeble.

Applicetur Vesicat. parti thoracis dolenti.

Habt. Mist. Olei et Opil. et Ext. Anodynum.

Rep. potus et Haust. Anod. Cont. Vinum.

21st.—No more false membranes have been expectorated since the 18th; passed a little blood by stool; sleeps somewhat better.

Omit Mist. Olei.

Habt. Pil. Rhei. Comp. gr. \mathfrak{ss} .

Ext. Hyocynami, gr. \mathfrak{ij} . bis in die.

Rept. potus et Haust. Anod.

24th.—A small blister has been applied just above the mamma, and sprinkled with morphia; the pain seems much relieved by it; the pill last ordered regulates his bowels easily, without any pain.

Pergat.

30th.—Has been put on full diet for some days, with $\mathfrak{z}i$. wine daily; the pill of rhubarb and hyocynamus has been continued, together with the potus mucilaginosus; the anodyne also has been repeated at night. Under this treatment a most marked improvement has taken place; the pain in the chest

is greatly relieved; he sleeps better; the bowels are natural, without pain; and he is now able to sit up for a short time.

Rep. Quinina.

April 5th.—The patient so far improved that all medicines have been discontinued for the last two days; he slept well last night without the anodyne; pain in the chest quite gone; bowels regular; he is now able to walk about the ward with ease; some cough still remains, with expectoration, but the latter is much less abundant and sanguinolent than it was; the dulness on the affected side has disappeared, or nearly so; respiration very feeble, as it is throughout both lungs; some mucous r le audible.

Ordered to be discharged.

Perhaps one of the most remarkable circumstances attending this case was the expectoration of what appeared to be portions of false membrane, transparent, but firm and strong, and presenting a distinct fibrous appearance. The patient's sputa for some time had been puriform and sanguinolent, without the existence of any evidence of a tuberculous abscess having formed. His pharynx certainly was found excoriated, but the transparency, toughness, and fibrous character of the membrane would not admit the supposition that it came from such a source, though it may be possible for the pharynx and œsophagus in some instances to secrete a species of cuticle. But may we not reasonably suppose it to be the debris of hydatids of the lung? The anomalous symptoms which occurred throughout the progress of the case correspond precisely with those given of cases of hydatids which were met with by Laennec and Andral. It is right to observe that the patient only expectorated this kind of membrane during two days, and then not in any large quantity. He had received a blow from a spent ball some years previously, after which he expectorated blood for ten days. May it not be possible that a slow process of irritation was set up in consequence, and thus in course of time gave origin to these hydatids?

In a case mentioned by Laennec, the coats of the hydatids were found to be thin, yet fibrous; the patient had long been subject to cough, dyspnoea, spitting of blood, faintings, &c.; and in those mentioned by Andral, in one of which recovery took place after the expectoration of hydatids, there were cough, hurried respiration, emaciation, and intense local pain. All these symptoms were well marked in the present case; and it is worthy of notice, that all his symptoms, which were so violent a day or two before these membranes were expectorated as to have precluded all prospect of ultimate recovery, began to subside almost immediately after the occurrence of the peculiar sputa, and the improvement was progressive under the use of stimulants and anodynes, until he was en-

abled to leave the hospital in less than three weeks from that period. It is curious too, that an amendment took place in all his symptoms at one and the same time, even those of gastro-enteritis, which had long been severe, began to diminish in intensity at the very same time that an abatement took place in the severity of those referrible to the chest. In every point of view, the rapidity of the patient's recovery when once improvement had commenced, must strike us as very remarkable.

It may be added, that the use of morphia, sprinkled on the blistered surface, seemed to afford much more relief to the pain than all the other anodynes employed, though frequently repeated.

GUY'S HOSPITAL.

Strangulated Inguinal Hernia—Operation.

GEORGE WINTERBURN, æt. 37, was admitted into Guy's Hospital, under Mr. Key, on the 11th of last August, at half-past eight p.m., for a large strangulated scrotal hernia of the right side. The man stated, that while lifting a heavy weight, about nine o'clock in the morning, the rupture came down, when feeling great pain, he applied in the course of the day to Mr. Calloway, who not being able to reduce it by the taxis, sent him to the hospital. The hernia had existed seven years, and had once before been strangulated, on which occasion he applied a poultice and went to bed. In the course of the night the gut went up. He has usually worn a truss, until within the last three days, when he left it off.

The hernia was, at the time of admission, very tense; there was great pain upon pressure; he had been sick and had been several times during the day; had taken castor oil without the bowels being opened; pulse 80, and full, tongue moist. The warm bath, and bleeding from the arm to between 60 and 70 ounces, and taxis, being tried without producing fainting, or any impression upon the hernia, the operation was immediately performed in the usual manner. The sac contained about five inches of ilium, covered by healthy omentum, part of which adhered to the neck of the sac, and a large quantity of dark-coloured serous fluid. The intestine was much injected, and of a dark colour, so much so, that considerable doubts were entertained whether it would be able to recover itself. That part of the omentum not adhering to the sac was returned into the abdomen, but the adhesions were not destroyed. There were two strictures; the one at the internal ring being very tight, and the other at the external ring not so small. After the operation he was much exhausted, and pulse scarcely perceptible.

R Hydrargyri Sabatiani, gr. ij.; *Opii*, gr. ij. *statim sumendus.*

Twelve p.m.—Says he feels more comfortable; pulse 114; thirsty; skin hot and dry.

Abdomen to be fomented, and to take *Magnesia Sulphatica*, ʒij. ex *Aqua Mentha*, ʒiss. *tertia quaque hora*; domi *vivus solutus fuerit*.

12th, nine a.m.—Has had some sleep; pulse 106, full, and bounding, not very compressible; tongue clean; skin natural; abdomen rather distended; a little tenderness on pressure, especially towards the right iliac region; bowels not opened.

Enema Olei Ricini statim injiciend.

One p.m.—Tenderness of abdomen extending over to the left side; complains much of spasmodic pains, resembling colic a good deal. *Enema* returned with very little fecal matter.

Hirudines xx. abdom. et R Mag. Sulph. ʒij.; Magnesia Carbon. ʒss. ex Aq. Mentha. statim sumend.

Ten p.m.—Bowels not opened; enema has been repeated, and returned with an intestinal smell, but very little fecal matter; pulse full and frequent; pain of abdomen continues.

Venesection ad ʒiv.; rept. Haustus Purgans, ʒta. hora; domi vivus respond. et contin. fotus.

13th, eight a.m.—No sleep in consequence of the gripping pains; bowels not being relieved at four o'clock this morning, he had injected into the rectum eight ounces of the house medicine, with eight ounces of warm water; this produced four, not very copious, evacuations, since which, pain and distention of belly have been much lessened. Pulse 104, rather jerking, but without much power; tongue clean and moist; no sickness; head free from pain: still tenderness on pressure over the right iliac region; blood drawn last night buffed and cupped.

Rept. Venesection ad ʒx. et Hirudines xij. abdomini, et postea fotus.

R Hydr. Submuriat. et Opil, aa. gr. j. statim sumend.

p.m.—Blood cupped and buffed; bowels opened rather more freely; skin moist; pulse 100, a little fuller; pain and tenderness still remain over the right internal ring; six more leeches have been applied. He has only taken one dose of the magnesia and salts to-day, in consequence of it making him sick.

14th, a.m.—Slept well; bowels been relieved, scantily, twice; gripping and distention of belly continue, but tenderness on pressure is confined to the right iliac region; has a little nausea; tongue furred and moist; pulse 98, hard. Plaster removed from the wound; it is looking well, and in part united; a poultice to be applied; scrotum swelled and inflamed.

R Calomel, gr. j.; Opil, gr. j. statim sumend.; et post horas quatuor repet. Haustus Magnes. Sulph. c. Magnes. Carbon.

p.m.—Bowels not being opened, another enema of senna and salts (the house medicine, has been administered, which has relieved the bowels more freely; tenderness diminished; countenance better; pulse 58, jerking; skin cool.

R Calomel, gr. ij.; Opil, gr. j. hora somni sumend.; et cras mane Ol. Ricini, ʒi.

15th.—Better; slept well; tongue moist; bowels have been freely opened; distention and pain in abdomen subsiding; pain in the right internal ring lessened; pulse 80.

16th.—Slept well; countenance good; tongue moist; belly less tympanitic; pulse 78, and has lost its jerking character; has lost the colicky pains; bowels not opened since last night.

Repeat Castor Oil.

18th.—Tongue clean; skin cool; pulse natural; belly soft; bowels open; tenderness gone; appetite improving.

21st.—Continues doing well; wound nearly healed.

30th.—Well; wound quite healed. There is a small piece of omentum remaining at the neck of the sac, most probably the part adhering at the time of the operation.

N.

BOOKS RECEIVED FOR REVIEW.

Lecture Introductory to a Course of Clinical Surgery, delivered to the Students of the Glasgow Medical Infirmary. By M. S. Buchanan, M.D. Member of the Faculty of Physicians and Surgeons, Glasgow, and one of the Surgeons to the Royal Infirmary, &c.

Illustrations of Surgical Anatomy, with Explanatory References; founded on the Work of M. Blandin. By John G. M. Burt, Surgeon to the City Dispensary, Extraordinary Member of Royal Medical Society, &c.

NOTICE.

We cannot comply with the request of "A Pupil," by inserting any prospectus in the body of our journal; we believe that all the lectures delivered in London have been advertised on our wrappers.

ERRATUM.

In Dr. Philip's paper in the last number of the Medical Gazette, page 1, last line but one of the note, for "the results of the reflections," read "the results and the reflections."

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